

WILLIAM DWIGHT WHITNEY
LINGUISTIC SERIES

EDITED BY

EDUARD PROKOSCH EDWARD SAPIR
FRANKLIN EDGERTON EDGAR H. STURTEVANT
of the Department of Linguistics in Yale University



A COMPARATIVE GRAMMAR
OF THE
HITTITE LANGUAGE

BY

EDGAR H. STURTEVANT



Edgar H. Sturtevant
PUBLISHED FOR
YALE UNIVERSITY

BY

THE LINGUISTIC SOCIETY OF AMERICA

SPECIAL PUBLICATIONS
OF THE
LINGUISTIC SOCIETY OF AMERICA

EDITED BY

GEORGE MELVILLE BOLLING
Ohio State University

HANS KURATH
Brown University

C. E. PARMENTER
University of Chicago

EDWARD SAPIR
Yale University

A COMPARATIVE GRAMMAR
OF THE
HITTITE LANGUAGE

BY
EDGAR H. STURTEVANT
Professor of Linguistics in Yale University



WILLIAM DWIGHT WHITNEY
LINGUISTIC SERIES

LINGUISTIC SOCIETY OF AMERICA
UNIVERSITY OF PENNSYLVANIA
PHILADELPHIA
1933

COPYRIGHT 1933
BY THE
LINGUISTIC SOCIETY OF AMERICA

Printed in the United States of America

COMPOSED AND PRINTED BY THE
WAVERLY PRESS, INC.
BALTIMORE, MARYLAND

PREFACE

The task of interpreting the Hittite texts is still far from completion. Many of them are not yet published, and a considerable proportion of those that have been published are only imperfectly understood. Even where our comprehension seems relatively satisfactory we are still frequently compelled to change our opinions. Furthermore, the study of Hittite grammar has been largely confined to description; barely half a dozen scholars have devoted more than incidental attention to Hittite comparative grammar. Any systematic treatment of the subject at this time must be very imperfect.

Nevertheless the attempt seems likely to be worth while. A good many phases of the language have been compared with Indo-European, and the combination of these separate observations into a system cannot fail to suggest new and more comprehensive points of view. Besides, the advances already made have rendered a good part of the existing grammatical literature obsolete, and it should be serviceable to have a statement of the present condition of the science with the elimination of theories that must be rejected. This holds particularly of my own contributions; my opinion has changed at so many points that I have in the following pages frequently suppressed references to my articles because the reader would find there much that I no longer believe. With few exceptions, all of which are referred to in the text, this book is intended to supplant what I have hitherto written on Hittite grammar.¹

While my primary purpose has been to treat from the comparative point of view the facts of Hittite grammar as these have already been established, I have tried to amplify the descriptive treatment of my predecessors.² In determining the facts of the language I have depended

¹ Any who may want to learn my previous opinions can find them in the following articles: *AJS* 45. 217-31; *AJP* 48. 247-57, 50. 360-9; *JAOS* 47. 174-84, 50. 125-8, 52. 1-12; *Lang.* 1. 69-79, 2. 25-34, 3. 109-22, 161-8, 215-25, 4. 1-6, 120-7, 159-70, 227-31, 5. 8-14, 139-46, 228-31, 6. 25-35, 149-58, 213-28, 7. 1-13, 115-24, 167-72, 242-51, 8. 1-10, 119-32, 9. 1-11; *Lang. Mon.* 7. 141-9; *OLZ* 1932. 468-472; *RHA* I. 76-88; *Studies in Honor of Hermann Collitz* 16-24; *TAPA* 58. 5-31, 59. 48-56, 60. 25-37, 62. 18-25.

² These are Hrozný, *SH*; Friedrich, *ZDMG* 76. 153-73; Forrer, *ZDMG* 76. 199-215; Delaporte, *Gramm.*; Barton, *A Hittite Manual for Beginners*.

very largely upon the four systematic treatises at the head of the list in fn. 2, and upon articles and commentaries by Ehelolf, Forrer, Friedrich, Götze, Hrozný, Sommer, Tenner, Ungnad, and others. With the help of my research assistants, Dr. Grace S. Hopkins and Mr. George Bechtel, I have collected nearly complete material from the texts that have been published in transliteration and from nearly all the ritual texts published in cuneiform characters. I have had at hand also incomplete material from a number of other texts. In general I have cited only forms whose actual existence in published texts has been verified by me or one of my assistants. Unpublished texts (designated Bo. or VAT) are necessarily cited on the authority of others, and a few forms cited by others without reference are so labeled in the footnotes.

It would have been desirable to print references for all forms cited; but that would have added considerably to the cost of the book. I have therefore referred to the published collections of texts only when there was some particular reason for doing so, most frequently on account of the rarity of the word or the form.

For the literature concerning the meanings of words reference is made to my Hittite Glossary (Language Monographs No. 9, Baltimore, 1931). Such literature, if omitted there, is generally cited upon the first occurrence in Chapter III of the word concerned.

Readers must be warned that the inclusion of a theory in this book without expression of doubt does not necessarily indicate that such a theory has been generally accepted by scholars. A large part of my opinions about comparative Hittite grammar have never been mentioned in print by any other scholar, and so they properly have the status of mere suggestions. I have tried to take account of what others have done, and I hope that my treatment is consistent with itself.

I anticipate three types of criticism that seem to me unwarranted. (1) Indo-Europeanists whose orthographic experience is chiefly with alphabets will probably feel that my phonetic interpretations are hopelessly arbitrary. For example, they are likely to lay much weight upon the consistent writing of final *a* in the nom. s. of masc. *nt*-stems [222] and in the pret. 3 s. of consonant stems of the *mi*-conjugation [391]. I do not mean to say that these and similar vowels are certainly non-phonetic, but merely that familiarity with Hittite cuneiform documents will probably dispose anyone not to take such a spelling very seriously. (2) My modifications of reconstructed IE, whether or not labeled IH, are sure to offend some. I can only beg my readers to remember that now for the first time since scholars began to reconstruct

IE we are confronted with a large body of new evidence of the highest antiquity. If such evidence did not lead to some revision of our reconstructions, that would be very surprising. (3) Certain scholars have apparently come to hold that it is always better to explain a form as an innovation of the language under consideration if that is possible. I prefer to identify a form with forms in related languages when the phonetic laws permit. In other words, I assume that primitive IE and primitive IH were as complex and as illogical as the languages that we know at first hand, and I am not disturbed if the evidence seems to point to the existence of all sorts of irregularity and inconsistency in them.

I am under obligations to the American Council of Learned Societies and to Yale University, through the Committee on Research in Language and Literature, for subventions that made possible the collection of the material mentioned above, the securing of other needed expert and clerical assistance, and the publication of the book. Without the efficient help of Dr. Hopkins and Mr. Bechtel the task could not have been completed for many months or perhaps years. Mr. Bechtel has assisted in many ways beside the collection of material.

Professor Walter Petersen of Chicago and my colleagues, Professors Franklin Edgerton, Eduard Prokosch, and Edward Sapir, have read part or all of the manuscript and have made many valuable suggestions. I am under obligations to Dr. Hopkins and to Professors George M. Bolling and E. Adelaide Hahn for assistance in reading proofs.

This volume is the first of three that are planned. The second volume will consist of an etymological and comparative treatment of the indeclinable words and an essay on syntax. Professor E. Adelaide Hahn of Hunter College has consented to collaborate with me in composing it, and she will be primarily responsible for the treatment of syntax. The third volume (probably the second in order of appearance) will be a volume of texts in cuneiform characters, with transliteration, translation, commentary, and vocabulary. It will be intended for beginners, and the needs of Indo-Europeanists will be kept prominently in mind in composing it. Mr. Bechtel will collaborate with me in this connection, and he will be primarily responsible for the cuneiform texts and for the cuneiform syllabary that will be prefixed.

TABLE OF CONTENTS

SECTION	PAGE
Table of Abbreviations.....	19
CHAPTER I. INTRODUCTION	
1. The documents from Boghazköi.....	27
2. Sumerian, Akkadian, and Indic in the Boghazköi documents.....	28
3. Hurrian and Hattic.....	28
4. Hittite in the Boghazköi documents; archaic texts....	29
5. Dispersal of the documents; the Arzawa letters.....	29
6. Relationship of Hittite to Indo-European by common descent from Indo-Hittite.....	29
7. Separate innovations of Hittite and of Indo-European...	30
8. Archaisms in Hittite.....	31
9. Phonetic differences between IH and IE.....	31
10. Relationship of Luwian to Hittite; Lycian, Lydian, Etruscan.....	32
11. Relationship of Tocharian to Hittite.....	32
12. Relationship of Hamito-Semitic to Indo-Hittite.....	33
CHAPTER II. THE SYSTEM OF WRITING	
13. Cuneiform writing as modified by the Hittites.....	34
14. Cuneiform writing in the Cappadocian tablets.....	34
15. Similarities between the two.....	35
16. Their treatment of the stops.....	35
17. Their treatment of <i>s</i> and <i>š</i>	36
18. Similarity of Hittite writing to that of early Babylonia...	36
19. Ideograms.....	36
20. Determinatives.....	37
21. Plural signs.....	38
22. Akkadian phonetic complements.....	38
23. Akkadian words in Hittite texts.....	38
24. Akkadian morphology in Hittite texts.....	39
25. The eight ways of writing Hittite.....	41
26. The simplification of the cuneiform syllabary by the Hittites.....	42

SECTION		PAGE
27.	The syllabary as used in Hittite texts.....	42
28.	The preference for signs beginning with a consonant....	46
29.	Phonetic complements after closed signs.....	47
30-34.	The writing of consonant groups.....	47
35.	Final <i>za</i>	49
36.	Diphthongs.....	49
37.	Space at the end of a word; enclitics.....	49
38.	Characters used in syllabic transcription.....	50
39.	The phoneme <i>a</i>	50
40.	The phoneme <i>e</i>	50
41.	The phoneme <i>i</i>	52
42.	The phoneme <i>u</i>	52
43, 44.	The phoneme <i>y</i>	54
45-47.	The phoneme <i>w</i>	57
48.	Diphthongs.....	60
49-52.	Pleonastic vowel signs.....	61
53.	The stops.....	63
54.	Velars with following <i>u/w</i>	67
55-57.	Nasals.....	68
58, 59.	Liquids.....	69
60.	The phoneme <i>s</i>	70
61.	<i>z = ts</i>	71
62-64.	The phoneme <i>h</i>	72
65.	Long consonants.....	73
66-68.	Long stops.....	74
69.	The double writing of <i>z</i>	84
70.	The double writing of <i>h</i>	84
71.	The double writing of <i>l, m, n, r, s</i>	85
72.	Broad transcription of doubled consonants.....	85

CHAPTER III. PHONOLOGY

73.	Indo-Hittite <i>a</i>	87
74.	IH <i>ā</i>	88
75, 76.	IH <i>e</i>	88
77, 78.	IH <i>ē</i>	91
79, 80.	IH <i>o</i>	93
81.	IH <i>ō</i>	94
82.	IH <i>i</i>	95
83.	IH <i>ī</i>	95

CONTENTS

11

SECTION		PAGE
84.	IH <i>u</i>	96
85.	IH <i>ū</i>	97
86, 87.	IH <i>ə</i>	97
88.	IH <i>ɐ</i>	98
89, 90.	IH <i>ai, əi, vi</i>	99
91.	IH <i>ei</i>	100
92.	IH <i>oi</i>	101
93.	IH <i>au, əu, eu</i>	101
94.	IH <i>āi, ēi, ōi</i>	102
95.	IH <i>āu, ēu, ōu</i>	103
96.	IH syllabic <i>n</i>	104
97.	IH syllabic <i>m</i>	105
98.	IH syllabic <i>r</i>	105
99.	pre-IH <i>wr > ru</i>	106
100.	IH syllabic <i>l</i>	106
101.	IH <i>ɪmə, ɪrə, ɪlə</i>	107
102.	Ablaut in Hittite.....	107
103.	Vowel shortening before IH <i>h</i> ; vowel lengthening in IE on loss of <i>h</i> before a consonant.....	110
104-108.	IH <i>y</i>	111
109, 110.	IH <i>w</i>	113
111.	IH <i>k</i> (IE <i>k̑, k</i>).....	116
112.	IH <i>g</i> (IE <i>ǵ, g</i>).....	117
113.	IH <i>gh</i> (IE <i>ǵh, gh</i>).....	117
114.	IH <i>kw, ku</i> (IE <i>kw</i>).....	119
115.	IH <i>gw, gu</i> (IE <i>gw</i>).....	121
116.	IH <i>ghw, ghu</i> (IE <i>ghw</i>).....	123
117-122.	IH <i>t</i>	124
123.	IH <i>th</i>	126
124.	IH <i>d</i>	127
125.	IH <i>dh</i>	128
126.	IH <i>tst, tsth, dzd, dzdh</i>	129
127.	IH <i>p</i>	129
128.	IH <i>bh</i>	130
129.	IH <i>n</i>	132
130-135.	<i>n</i> in certain consonant groups.....	133
136, 137.	IH <i>m</i>	135
138-140.	IH <i>r</i>	136
141.	IH <i>l</i>	138

SECTION		PAGE
142.	IH <i>s, z</i>	138
143.	IH <i>s</i> movable.....	140
144, 145.	IH <i>h</i>	141

CHAPTER IV. NOUNS AND ADJECTIVES

I. Word-formation

146.	Composition.....	144
147.	Stereotyped phrases.....	144
148.	Reduplication.....	145
149.	Prefixes.....	146
150.	Action nouns.....	147
151.	Suffix <i>ais</i>	147
152.	Suffixes <i>al, el, ul, ulas</i>	147
153.	Suffix <i>ur</i>	148
154.	Suffix <i>an</i>	148
155.	Suffix <i>t</i>	149
156.	Suffix <i>tar</i>	149
157.	Suffix <i>atar</i>	150
158.	Infinitives in <i>ana, ani, anas</i>	151
159.	Suffix <i>watar</i>	151
160.	Suffix <i>sar</i>	151
161.	Suffix <i>war, mar</i>	152
162.	Infinitives in <i>wanzi, manzi</i>	154
163.	Suffix <i>zis, zi</i>	155
164.	Suffix <i>uzis, uzi</i>	155
165.	Suffix <i>astis, asti</i>	155
166.	Suffix <i>zel</i>	156
167.	Suffix <i>mas</i>	156
168.	Agent nouns with suffix <i>taras, talas</i>	156
	Participles	
169.	Suffix <i>tas</i>	157
170, 171.	Suffix <i>anz</i>	157
	Denominative nouns and adjectives	
172-174.	Suffix <i>las, lis, li</i>	159
175.	Suffix <i>ras</i>	160
176.	Suffix <i>shas</i>	160
177.	Suffix <i>wanz, manz</i>	160
178.	Suffix <i>sas, sis</i>	161
179.	Suffix <i>umnas</i>	161

II. Declension

SECTION		PAGE
180.	Stem classes.....	161
181.	Gender.....	162
182-184.	Number.....	162
185-190.	The cases—sketch of syntax.....	166
191.	Nominative singular masculine.....	167
192.	Accusative singular masculine.....	169
193.	Nominative-accusative singular neuter.....	169
194.	Genitive singular.....	169
195.	Dative singular.....	170
196.	Ablative singular.....	172
197.	Instrumental singular.....	174
198.	Nominative plural masculine.....	175
199.	Accusative plural masculine.....	176
200.	Genitive-dative plural.....	177
201.	Neuter plural.....	177

III. Paradigms

202.	Description of paradigms.....	178
203.	<i>a</i> -stems.....	178
204, 205.	<i>i</i> -stems.....	179
206, 207.	<i>u</i> -stems.....	181
208.	<i>utne</i>	182
209.	<i>l</i> -stems.....	182
210.	<i>r</i> -stems.....	183
211, 212.	<i>n</i> -stems.....	183
213-219.	<i>r/n</i> -stems.....	184
220.	<i>s</i> -stems.....	187
221.	<i>iskaruh</i>	188
222.	<i>t</i> -stems.....	188

CHAPTER V. PRONOUNS

I. Personal and Possessive Pronouns

223.	A list of the Hittite personal and possessive pronouns..	190
224.	IH personal pronouns.....	190
225.	The two systems compared.....	191
226.	Pronouns extended by <i>-a</i>	192
227.	The first person singular.....	192
228.	The second person singular.....	193
229.	The first person plural.....	193

SECTION		PAGE
230.	The second person plural.....	193
231.	Enclitic <i>-mu</i> , <i>-tu</i>	194
232.	Enclitic <i>-ta</i>	194
233.	Enclitic <i>-me</i> , <i>-te</i> , <i>-se</i>	194
234.	The possessives <i>-mes</i> , <i>-tes</i> , <i>-ses</i>	194
235.	<i>-nas</i> 'nos, nobis'.....	194
236.	<i>-smas</i> 'vos, vobis; eis, sibi', <i>-smes</i> 'vester, eorum, suus'.	194
237-245.	Paradigms.....	195

II. Demonstratives, Indefinites, Relative, Interrogative

246, 247.	<i>-as</i> 'is' and <i>tas</i> , <i>nas</i> 'et is'.....	198
248.	<i>etas</i> 'eius'.....	200
249.	<i>sas</i> 'is'.....	200
250.	<i>asi</i> , <i>eni</i> , <i>uni</i> 'is'.....	201
251.	<i>kas</i> 'hic'.....	201
252.	<i>apas</i> 'is'.....	201
253.	<i>anis</i> 'ille'.....	201
254.	<i>tamais</i> 'alter, alius'.....	202
255, 256.	<i>kwis</i> 'quis, qui', <i>kwisa</i> 'quisque', <i>kwiski</i> 'quisquam'.....	202
257.	<i>-el</i> , <i>-ela</i> 'ipse'.....	203
258.	Gender and number in the pronouns.....	203
259.	Case forms.....	204
260.	Formative <i>t</i>	204
261.	Formative <i>l</i>	205
262.	Formative <i>n</i>	205
263.	Endings of the dative singular.....	205
264.	Endings of the ablative singular.....	206
265.	Endings of the neuter plural.....	206
266-277.	Paradigms.....	206

CHAPTER VI. VERBS

I. Prefixes

278.	Separable prefixes.....	212
279-287.	Inseparable prefixes.....	213

II. Reduplication

288.	Reduplication consisting of two consonants and intervening vowel.....	214
289.	Reduplication consisting of a consonant and a vowel...	215
290.	Reduplication consisting of a vowel and a consonant...	216

III. The Verb System in General

SECTION		PAGE
291.	Outline of the verb system.....	216
292.	Non-significant differences of form.....	216
293.	Archaism and innovation in the verb.....	217

IV. Stems of the mi-Conjugation

294.	The <i>mi</i> -conjugation and the Indo-European present system.....	217
295.	Thematic conjugation.....	217
296.	Distribution of the thematic vowels.....	218
297.	Spread of the thematic conjugation.....	218

1. Primary Verbs

298.	Ablaut bases of the type <i>deiketēi</i>	220
299-302.	Root verbs of the <i>mi</i> -conjugation.....	220
303-305.	Primary thematic verbs.....	222

2. Derivative Verbs

306-309.	Suffix <i>iya</i>	224
310-314.	Suffix <i>a(e)</i>	226
315.	Suffix <i>s</i>	228
316.	“ <i>s</i> -aorist”.....	228
317.	“ <i>sa</i> -aorist”.....	229
318.	“ <i>iṣ</i> -aorist”.....	229
319.	“ <i>siṣ</i> -aorist”.....	230
320-322.	Preterites of the <i>hi</i> -conjugation with formative <i>s</i>	230
323.	Suffix <i>es</i> in denominatives.....	231
324.	Nasal infix.....	232
325.	Verbs of the type <i>henk-</i> ‘determine’.....	234
326-332.	Suffix <i>nu</i>	234
333-338.	Suffix <i>ske/a</i>	236

V. Stems of the hi-Conjugation

339.	The <i>hi</i> -conjugation and the Indo-European perfect system.....	239
------	--	-----

1. Consonant Stems

340-345.	Primary verbs.....	239
346, 347.	Denominative verbs in <i>ah</i>	241
348.	Derivative verbs in <i>h</i>	243

2. Stems in *a*

SECTION		PAGE
349.	Their source in Indo-Hittite $\bar{o}/a/0$, and $\bar{a}/a/0$	243
350-352.	Primary verbs	243
353-357.	Suffix <i>na</i>	244
358.	Suffix <i>sa</i>	246

3. Diphthongal Stems

359.	Three types of stem	246
360.	Stems in original $\bar{e}i$	246
361.	Stems in original $\bar{e}i$	247
362.	Stem in original <i>awe</i>	247
363.	The shortened stem in <i>e</i> or <i>u</i>	247
364.	The bare stem in 3 s.	248
365-369.	Comparison with Indo-European forms	248
370.	Suppletion of diphthongal stems	249

VI. *The Medio-Passive*

371-374.	Meaning and form in general	250
375-377.	The thematic stem in the medio-passive	250

VII. *Mood*

378.	Indicative and imperative	251
------	-------------------------------------	-----

VIII. *Tense*

379.	Present and preterit	251
------	--------------------------------	-----

IX. *Number*

380.	Singular and plural	252
------	-------------------------------	-----

X. *Person*

381.	The three persons	252
------	-----------------------------	-----

The Personal Endings

1. The Endings of the *mi*-Conjugation

382-387.	The present endings	252
388-393.	The preterit endings	253
394-398.	The imperative endings	255

2. The Endings of the *hi*-Conjugation

SECTION		PAGE
399.	Suppletion in the <i>hi</i> -conjugation.....	256
400-405.	The present endings.....	256
406-412.	The preterit endings.....	258
413-417.	The imperative endings.....	260

3. The Medio-Passive Endings

418.	Non-significant variation.....	261
419-425.	Signs of mood and tense (<i>ri, ru, t, ti, ni, nu</i>).....	262
426-434.	The medio-passive personal endings.....	264

XI. Verbal Nouns and Adjectives

435.	Participle.....	267
436.	Infinitives.....	267
437.	Verbal nouns.....	267

XII. Periphrastic Conjugations

438.	The participle with <i>es</i> - 'be'.....	267
439.	The participle with <i>har(k)</i> - 'have'.....	268
440.	The supine in <i>wan</i> with <i>tai</i> 'place'.....	268

XIII. Paradigms

1. The *mi*-Conjugation

441-443.	Root verbs with radical <i>e/o/a/0</i> and final consonant...	268
444.	Root verbs with radical <i>ē/a/0</i> and final consonant....	270
445-449.	Other consonant stems.....	271
450-452.	Vowel stems.....	275
453-457.	Thematic verbs.....	278

2. The *hi*-Conjugation

458-460.	Class I, consonant stems.....	283
461.	Class II, <i>a</i> -stems.....	286
462-463.	Class III, diphthongal stems.....	287

3. The Medio-Passive

464.	Forms with simple endings.....	289
465.	Forms with complex endings.....	290
	ADDITIONS AND CORRECTIONS.....	292
	INDICES.....	293

ABBREVIATIONS

I BOOKS AND PERIODICALS

- AJP = American Journal of Philology, founded by B. L. Gildersleeve. Baltimore.
- AJSL = American Journal of Semitic Languages and Literatures. Chicago.
- Altorient. Stud. = Altorientalistische Studien Bruno Meissner zum Sechszigsten Geburtstag Gewidmet von Freunden, Kollegen, und Schülern. Leipzig. 1928.
- AO = Der Alte Orient, gemeinverständliche Darstellungen herausgegeben von der Vorderasiatisch-Aegyptischen Gesellschaft. Leipzig.
- AOF = Archiv für Orientforschung, internationale Zeitschrift für die Wissenschaft vom vorderen Orient. Berlin. (The first two volumes are entitled: Archiv für Keilschriftforschung.)
- AOr. = Archiv Orientální, Journal of the Czechoslovak Oriental Institute. Prague.
- BB = Beiträge zur Kunde der Indogermanischen Sprachen, herausgegeben von A. Bezzenger. 30 vols. Göttingen. 1877-1907.
- Berl. Mus. Ber. = Berliner Museen, Berichte aus den Preussischen Kunstsammlungen. Berlin.
- Boisacq, Dict. = É. Boisacq, Dictionnaire Étymologique de la Langue Grecque, étudiée dans ses rapports avec les autres langues indo-européennes. Heidelberg and Paris. 1915.
- BoSt. = Boghazköi-Studien, herausgegeben von Otto Weber. 10 parts. Leipzig. 1917-24.
- BoTU = Die Boghazköi-Texte in Umschrift, von Emil Forrer. 2 vols. = 41 und 42 wissenschaftliche Veröffentlichung der deutschen Orient-Gesellschaft. Leipzig. 1922-6.
- Brugmann, Grund. = K. Brugmann and B. Delbrück, Grundriss der Vergleichenden Grammatik der Indogermanischen Sprachen. 2nd edition. 2 vols. in 5. Strassburg. 1897-1916.
- BSL = Bulletin de la Société de Linguistique de Paris. Paris.
- Congr. 1 = Actes du Premier Congrès International de Linguistes. The Hague. 1928.
- Congr. 2 = Actes du Second Congrès International de Linguistes. Geneva. 1931.

- Delaporte, Gramm. = L. Delaporte, *Éléments de la Grammaire Hittite* = *Manuel de la Langue Hittite II*. Paris. 1929.
- Delitzsch, Ass. Gramm. = F. Delitzsch, *Assyrian Grammar*, translated by R. S. Kennedy. Berlin. 1889.
- EM = *Etymologicum Magnum*.
- Fiesel, Etruskisch = Eva Fiesel, *Etruskisch = Geschichte der Indogermanischen Sprachwissenschaft* 2. 5. 4. Berlin and Leipzig. 1931.
- Forrer, Forschungen = E. Forrer, *Forschungen*. Berlin. 1926–
- Friedrich, Hethitisch = J. Friedrich, *Hethitisch und "Kleinasiatische" Sprachen = Geschichte der Indogermanischen Sprachwissenschaft* 2. 5. 1. Berlin and Leipzig. 1931.
- Friedrich, Vert. = J. Friedrich, *Staatsverträge des Hatti-Reiches in Hethitischer Sprache*. 2 parts = *Hethitische Texte in Umschrift mit Uebersetzung und Erläuterungen*. Heft II, IV = MVAG 31. 1, 34. 1. Leipzig. 1926–1930.
- Glotta = *Glotta, Zeitschrift für griechische und lateinische Sprache*. Göttingen.
- Götze, Hatt. = A. Götze, *Hattušiliš, der Bericht über seine Thronbesteigung nebst den Paralleltexen* = *Hethitische Texte in Umschrift*. Heft I = MVAG 29. 3. Leipzig. 1925.
- Götze, KIH = A. Götze, *Kleinasien zur Hethiterzeit, eine geographische Untersuchung* = *Orient und Antike* 1. Heidelberg. 1924.
- Götze, Madd. = A. Götze, *Madduwattaš* = *Hethitische Texte in Umschrift*. Heft III. = MVAG 32. 1. Leipzig. 1928.
- Götze, NBr. = A. Götze, *Neue Bruchstücke zum Grossen Text des Hattušiliš und den Paralleltexen* = *Hethitische Texte in Umschrift*. Heft V = MVAG 34. 2. Leipzig. 1930.
- Hesych. = *Hesychius, Lexicon*.
- Hirt, Idg. Gr. = H. Hirt, *Indogermanische Grammatik*. 5 vols. Heidelberg. 1921–9.
- Hrozný, CH = F. Hrozný, *Code Hittite Provenant de l'Asie Mineure. Première Partie* = *Hethitica, collection de travaux relatifs a la philologie, l'histoire, et l'archéologie hittites* 1. 1. Paris. 1922.
- Hrozný, SH = F. Hrozný, *Die Sprache der Hethiter, ihr Bau und ihre Zugehörigkeit zum indogermanischen Sprachstamm, ein Entzifferungsversuch* = *BoSt.* 1, 2. Leipzig. 1917.
- HT = *Hittite Texts in the Cuneiform Character from Tablets in the British Museum*. London. 1920.
- IF = *Indogermanische Forschungen*. Berlin and Leipzig.

- JA = Journal Asiatique, recueil trimestrielle de mémoires et de notices relatifs aux études orientales, publié par la Société Asiatique. Paris.
- JAOS = Journal of the American Oriental Society. New Haven.
- JRAS = Journal of the Royal Asiatic Society of Great Britain and Ireland. London.
- JSFO = Journal de la Société Finno-Ougrienne = Suomalais-Ugrilainen Seuran Aikakauskirja. Helsingfors.
- JSOR = Journal of the Society of Oriental Research. Chicago.
- KBo. = Keilschrifttexte aus Boghazköi. 6 parts = 30, 36 Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft. Leipzig. 1921-3.
- KIF = Kleinasiatische Forschungen. Weimar.
- Korošec, Vert. = V. Korošec, Hethitische Staatsverträge = Leipziger Rechtswissenschaftliche Studien 60. Leipzig. 1931.
- KUB = Staatliche Museen zu Berlin, Vorderasiatische Abteilung, Keilschrift-Urkunden aus Boghazköi. Berlin. (26 Hefte have been issued. 1921-33.)
- KZ = Zeitschrift für Vergleichende Sprachforschung, begründet von A. Kuhn. Berlin.
- Lang. = Language, journal of the Linguistic Society of America. Baltimore.
- Lang. Mon. = Language Monographs, published by the Linguistic Society of America. Philadelphia and Baltimore.
- Marstrander, Car. = C. J. S. Marstrander, Caractère Indo-Européen de la Langue Hittite = Videnskapsselskabets Skrifter, Hist.-Filos. Klasse, 1918. 2. Christiania. 1919.
- MDOG = Mitteilungen der Deutschen Orient-Gesellschaft. Berlin.
- MSL = Mémoires de la Société de Linguistique de Paris. Paris.
- MVAG = Mitteilungen der Vorderasiatisch-Aegyptischen Gesellschaft. Leipzig.
- OLZ = Orientalistische Literaturzeitung, Monatsschrift für Wissenschaft vom ganzen Orient und seinen Beziehungen zu den grenzenden Kulturkreisen. Leipzig.
- Pedersen, Group. = H. Pedersen, Le Groupement des Dialectes Indo-Européens = Det Kgl. Danske Videnskabernes Selskab, Historisk-filologiske Meddelelser 11. 3. Copenhagen. 1925.
- Pedersen, KG = H. Pedersen, Vergleichende Grammatik der Keltischen Sprachen. 2 vols. Göttingen. 1909-13.
- RA = Revue d'Assyriologie et d'Archéologie Orientale. Paris.

- Real. Ass. = E. Ebeling and B. Meissner, Reallexikon der Assyriologie. Berlin and Leipzig. 1928–
- Real. Vorg. = M. Ebert, Reallexikon der Vorgeschichte. 15 vols. Berlin. 1924–32.
- REAn. = Revue des Études Anciennes = Annales de la Faculté des Lettres de Bordeaux et des Universités du Midi, quatrième série. Bordeaux.
- RHA = Revue Hittite et Asianique, organe de la Société des Études Hittites et Asianiques. Paris.
- RhM = Rheinisches Museum für Philologie, Neue Folge. Frankfurt a.M.
- RO = Rocznik Orientalistyczny. Lwów.
- RV = Rig Veda.
- SBPA = Sitzungsberichte der Preussischen Akademie der Wissenschaften, phil.-hist. Klasse. Berlin.
- Sommer, AU = F. Sommer, Die Aḥḥijava-Urkunden = Abhandlungen der Bayerischen Akademie der Wissenschaften, phil.-hist. Abteilung, NF 6. Munich. 1932.
- Sommer, Gr. Lautst. = F. Sommer, Griechische Lautstudien. Strassburg. 1905.
- Symb. Gramm. = Symbolae Grammaticae in Honorem Ioannis Rozwadowski. Cracoviae. 1927.
- TAPA = Transactions of the American Philological Association. Middletown, Conn.
- Tenner, HAT = E. Tenner, Ein Hethitischer Annalenteil des Königs Muṣiliš II. Leipzig. 1926.
- VBoT = A. Götze, Verstreute Boghazköi-Texte. Marburg a. d. Lahn. 1930.
- Walde-Pokorny = A. Walde, Vergleichendes Wörterbuch der Indogermanischen Sprachen, herausgegeben und bearbeitet von J. Pokorny. 3 vols. Berlin and Leipzig. 1927–32.
- Weidner, Stud. = E. Weidner, Studien zur Hethitischen Sprachwissenschaft 1 = Leipziger Semitistische Studien 7. 1, 2. Leipzig. 1917.
- Whitney, Skt. Gramm. = W. D. Whitney, A Sanskrit Grammar, including both the classical language and the older dialects of Veda and Brahmana. 2nd edition. Leipzig and Boston. 1889.
- Witzel, HKU = F. Witzel, Hethitische Keilschrift-Urkunden in Transcription und Uebersetzung mit Kommentar 1 = Keilinschriftliche Studien 4. Fulda. 1924.

WZKM = Wiener Zeitschrift für die Kunde des Morgenlandes. Vienna.

ZA = Zeitschrift für Assyriologie und Verwandte Gebiete. Berlin and Leipzig.

ZDMG = Zeitschrift der Deutschen Morgenländischen Gesellschaft. Leipzig.

II LANGUAGES AND DIALECTS

Akk.	= Akkadian
Arc.	= Arcadian
Arm.	= Armenian
Att.	= Attic
Av.	= Avestan
ChSl.	= Church Slavic
Czech.	= Czechish
Dor.	= Doric
Eng.	= English
Gk.	= Greek
Goth.	= Gothic
IE	= Indo-European
IH	= Indo-Hittite
Ion.	= Ionic
Lat.	= Latin
Lett.	= Lettic
Lith.	= Lithuanian
Lyc.	= Lycian
MIr.	= Middle Irish
OE	= Old English
OHG	= Old High German
OIr.	= Old Irish
OIsl.	= Old Icelandic
OLat.	= Old Latin
ON	= Old Norse
OP	= Old Persian
OPr.	= Old Prussian
OS	= Old Saxon
Osc.	= Oscan
Skt.	= Sanskrit
Thess.	= Thessalian
Toch.	= Tocharian
Umbr.	= Umbrian

III OTHER ABBREVIATIONS

abl.	= ablative
acc.	= accusative
act.	= active
adv.	= adverb
aor.	= aorist
Bo.	= Boghazköitexte (unpublished)
cf.	= compare
dat.	= dative
e.g.	= for example
f.	= following page
ff.	= following pages
fn.	= footnote
gen.	= genitive
ib.	= ibidem
imper.	= imperative
ind.	= indicative
infin.	= infinitive
inst.	= instrumental
loc.	= locative
masc.	= masculine
midd.	= medio-passive
neut.	= neuter
NF	= Neue Folge
nom.	= nominative
obl.	= oblique
part.	= participle
perf.	= perfect
pl.	= plural
pres.	= present
pret.	= preterit
s.	= singular
s. v.	= sub voce
subj.	= subjunctive
VAT	= Vorderasiatische Texte (unpublished)
verb. n.	= verbal noun
>	= becomes, becoming
<	= comes from, coming from
:	= related to
/	= alternating with

Cross references are enclosed in square brackets. Square brackets about Roman type indicate phonetic transcription. If part of a word is printed in parentheses, that part of the word is sometimes omitted in the documents.

In writing reconstructed IE I depart from Brugmann's practice as follows: $k = q$; $kw = q^w$; $g = q$; $gw = q^w$; $ghw = q^wh$; $y = \dot{z}$; $w = \mathfrak{w}$; $v = e$; $n, m, r, l = \mathfrak{n}, \mathfrak{m}, \mathfrak{r}, \mathfrak{l}$ except where the diacritic is required for clearness; $\mathfrak{v}n = \mathfrak{n}^n$, etc.; the asterisk is omitted before reconstructed forms if they are otherwise clearly labelled.

Sumerian words are printed in capitals and Akkadian words and sounds in Italic capitals. Other cited words are in Italics.

If several compared words have the same meaning, this is given only after the entire group; e.g., *esmi*, *eszi* : Gk. *εἰμι*, *ἐστὶ*, Lith. *esmi*, *ėsti* 'am, is'.

Nouns, adjectives, and pronouns are generally cited in the nominative, and a form not given a case label is nominative. If the number is not designated, it is singular. Verbs are cited either in the stem form (with following hyphen) or in the pres. 3 s. If a verb form is cited without indication of person or number, it is 3 s.; if there is no indication of tense, it is pres.; and when the mood is not named, it is ind. Hence a form cited without label is ind. pres. 3 s.

CHAPTER I

INTRODUCTION

1. Our knowledge of the Hittite language is almost entirely based upon clay tablets discovered by Hugo Winckler in the Turkish village of Boghazköi, ninety miles east of Angora.¹ Here was situated Hatusas (^{URU}*Ha-at-tu-ša-aš*, ^{URU}*AZAG.UD-aš*), the capital of the second Hittite empire (ca. 1450–1200 BC),² and Winckler had the good luck to secure a considerable part of the royal archives, including several thousand tablets and parts of tablets. The excavations were not completed, and brief campaigns in 1931 and 1932 indicate that many documents are still to be found there.³ The texts discovered include a law code, royal decrees, treaties of the Hittite monarchs with independent kings and with their vassals, letters by and to the kings and members of their families, annals by various kings, directions for rituals to be performed at the many court festivals, prayers, detailed accounts of magic rites for the cure of disease and for other purposes, records of omens, and several mythological legends. Of unique interest is a treatise on the care and training of race horses. The Hittite scribes, like their masters in Assyria and Babylonia, composed glossaries of rare or difficult words in the several languages in which they were interested, and considerable fragments of these have come to light.

The tablets found at Boghazköi were divided between the museums of Stamboul and Berlin. Those in Stamboul will be cited when necessary by Bo. (= Boghazköi) followed by the museum number, and those in Berlin by VAT (= Vorderasiatische Texte) and the museum number. Publication was begun by the Deutsche Orient-Gesellschaft in a collection entitled *Keilschrifttexte aus Boghazköi* (abbreviated KBo.), 6 fascicles, Leipzig, 1916–21. It was continued by the Staatliche Museen zu Berlin under the title *Keilschrifturkunden aus Boghazköi* (abbreviated KUB), parts 1–26, Berlin, 1921–33. A large number of texts are still unpublished.

¹ Winckler, MDOG 35 (1907).

² For a brief account of Hittite history, see Götze, *Das Hethiter-Reich, seine Stellung zwischen Ost und West* = AO 27. 2 (1929).

³ Bittel and Ehelolf, MDOG 70 (1932); Bittel, *Forschungen und Fortschritte* 9.33 f. (1933).

Forrer has published a number of historical texts in transliteration under the title *Boghazköi-Texte in Umschrift* (abbreviated BoTU), zweiter Band, *Geschichtliche Texte aus dem Alten und Neuen Chatti-Reich*, Leipzig, 1926.

2. The glossaries contain Sumerian, Akkadian, and Hittite in parallel columns. Several of the treaties and some other documents are written in Akkadian throughout. All the texts contain many words that are written by Sumerian ideograms or by Akkadian words, although these were to be read as Hittite [21]. The treatise on horsemanship contains a number of technical terms that are clearly taken from the Indic court language of Mitanni, and a treaty between the Hittite king Supiluliyumas and Matiwaza of Mitanni contains the names of several Vedic gods.⁴

3. The ritual texts contain many passages of greater or less extent in three other languages.⁵ One of these, Luwian, will be discussed below [10]. Hurrian differs but little from the language of Mitanni, which is known to us in one of the Tell el-Amarna letters.

Of peculiar interest are the passages in an otherwise unknown language, which are introduced by such phrases as *Hatili kisan malti* ([*H*]a-at-ti-li ki-iš-ša-an ma-al-di—KUB 1. 14. 2. 14) 'he recites thus in Hattic' or *Hatili memai* (*H*a-at-ti-li me-ma-i—KUB 2. 2. 4. 15) 'he says in Hattic'. The word *Hatili* is an adverb derived [174] from the frequent ethnicon *Hati* (*H*a-at-ti) that applies to the Hittite empire, to the later Hittite kingdom whose capital was Carchemish on the Euphrates, and, in Assyrian texts, to all the peoples from the Euphrates to the Mediterranean Sea. The latter word long ago got into the modern European languages, by way of its Hebrew form *Hitti*, as *Hittite* (German *Hethiter* reflects Hebrew *bēnē Hēth* 'sons of Heth'). Evidently the original *Hati* were an indigenous people of eastern Asia Minor whose name was adopted by the founders of the Hittite empire; and we merely carry the process a little farther in applying the term also to the official language of that empire.⁶ The Hittites themselves reserved the adverb *Hatili* for the indigenous language. Fortunately our use of the biblical

⁴ For the treatise on horsemanship, see Hrozný, AOr. 3. 431–61 and references. For the Indic gods, see Kretschmer, WZKM 33. 2 f. and references.

⁵ Friedrich, *Hethitisch* 41–9, and references.

⁶ Forrer's term *Kanesisch* for the official Hittite language has nothing in its favor and should be abandoned. Hrozný, JA 218.317–20, may be correct in thinking that the word *Nesumnilī* (*Ne-eš-um-ni-li*—VBoT 2. 25) refers to official Hittite and therefore in calling the latter Nesite; but even so it is to be hoped that the situation will not be needlessly confused by an attempt to introduce this word into our modern languages.

name Hittite leaves the ancient stem free for use in its original sense; we shall call the predecessor language Hattic.⁷

4. A large majority of the texts from Boghazköi are written in Hittite.⁸ All the texts so far recovered were inscribed within the two centuries and a half of the second Hittite empire; but some of them are copies of earlier tablets or recensions of earlier texts originally composed during the first empire (ca. 1900–1650 BC). The language of the earlier texts shows some characteristic differences from that of the others; e.g. the use of the sentence connective *ta* [246], of the enclitic possessive pronouns [223], of the pronoun *sas* 'is' [249], and the tendency to express the end of motion by a case form ending in *a* [195f]. For the most part, however, the earlier language is indistinguishable from the later.

5. From other sites than Boghazköi we have very little material. To be sure a number of tablets had been found at or near Boghazköi before Winckler's excavations and some tablets were inevitably lost or stolen during his work there. This material has been carried to many parts of the world by traders and collectors; but the characteristic appearance of the tablets and the nature of their contents generally show clearly enough where they came from. A different provenience is certain only in the case of two letters from Tell el-Amarna in Egypt.⁹ The first of these is from the Pharaoh Amenophis III to Tarhundaradu, king of Arzawa in Cilicia(?) and the second is probably from Tarhundaradu to the Pharaoh. The language of the first letter contains several dialectic features which I shall call Arzawan (*-me* and *-te* where we might expect forms of *-mes* and *-tes* [234], an infinitive *aumani* 'to see' [161e], *pipit* = *kwit kwit*¹⁰).

The Hittite documents in the British Museum have been published under the title *Hittite Texts in the Cuneiform Character from Tablets in the British Museum* (abbreviated HT), London, 1920. A large part of the scattered material, including the two Arzawa letters, has been published by Götze under the title *Verstreute Boghazköi-Texte*, Marburg, 1930.

6. It is now generally agreed that Hittite is somehow related to the IE languages; but a considerable majority of those who have expressed

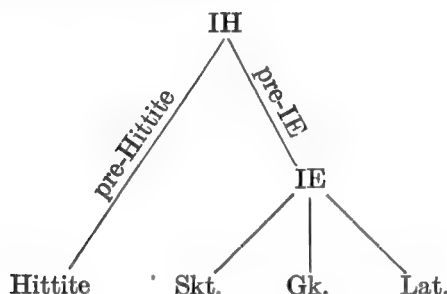
⁷ There seems to be no need for the cumbrous terms "Proto-Hattic" or "Proto-Hittite".

⁸ For an excellent although brief account of the interpretation of the Hittite documents, see Friedrich, *Hethitisch* 7–17. Cf. also Hrozný, *AOr.* 3. 272–95.

⁹ They have been treated most recently by Cavaignac, *RHA* 1. 103 ff., and Hrozný, *JA* 1931. 307–20.

¹⁰ Cf. Forrer, *Forschungen* 2. 60–4.

an opinion on the matter in recent years hold that Hittite was among the first of the known languages to separate from the parent stock.¹¹ The comparisons in this book are based upon the assumption that Hittite bears somewhat the same relationship to the IE languages that Gk. or Skt. bears to the Italic languages. That is to say, Hittite and primitive IE are related by virtue of common descent from an earlier parent speech, which I shall call primitive Indo-Hittite (abbreviated IH). A stemma may be constructed thus:



Consequently I never speak of primitive IE as the source of any feature of Hittite, although Hittite features are frequently said to correspond to certain features of primitive IE or of the historical IE languages.

Those who do not accept the hypothesis of the common descent of primitive IE and Hittite from primitive IH will generally have little difficulty in translating my treatment into the terminology required by the alternative hypothesis, namely that Hittite is descended from primitive IE; for I assume that IH is identical with IE unless there is a specific reason to the contrary.

7. There are two reasons for thus distinguishing between Hittite and IE. (1) Hittite, although its written documents are older than those of any IE language, differs from the ancient IE languages far more than these differ from one another. For example, the Hittite verbal system is

¹¹ Without attempting a complete list of these I may name the following. Forrer, MDOG 61. 26 f.; Ungnad, ZA NF 1. 3 f.; Hrozný, BoSt. 5. 47 fn. 2, AOr. 3. 279; Vendryes ap. Meillet and Cohen, *Les Langues du Monde* 21; Kretschmer, Glotta 14. 300-19; Sturtevant, Lang. 2. 29-34, TAPA 60. 25-37, Lang. 9. 1-11; Petersen, AJP 51. 259 fn. 17, Lang. 9. 33 f.; Bloomfield, *Language* 64, 309, hold more or less definitely that Hittite separated from the parent stock earlier than the previously known IE languages. Petersen excepts Tocharian [11]. Some other scholars do not go so far as this, but still hold that the separation of Hittite was very early; e.g. Friedrich, *Hethitisch* 38 f.; Meillet, BSL 32. 1-28. The second passage cited above from Hrozný is perhaps to be understood in this sense.

remarkably simple while the ancient IE languages agree in presenting a very complex system of moods and tenses [291]. This fact and similar ones can perhaps be explained by the assumption of exceptionally rapid change in prehistoric Hittite, but the situation certainly suggests a more distant relationship. To be specific, the IH verb system may have gained somewhat in complexity during the pre-IE period, while it was greatly simplified during the relatively long pre-Hittite period.

(2) More cogent is the discovery of a number of features in which the historical IE languages agree in showing the same innovation, while Hittite alone preserves the earlier state of affairs. In other words, the chief support of the IH hypothesis comes from the archaisms in Hittite.

8. Among the clearest Hittite archaisms are the retention of IH *h* [144], the retention of the original distribution of IH *m* < *w* [110], the retention of *tst* < pre-IH dental + dental [126], the regular occurrence of *ku* before a consonant where the IE languages show loss of labialization or some analogical development [114–116], the absence of the feminine gender [181], the frequency and functional importance of the nouns with stems in *r/n* [156–161], the retention of the abl. ending *ts* by all nouns [196], the relatively clear distinction in the forms of the personal pronouns between a set of nom. stems and a set of oblique stems [224], the paucity of case distinctions in the plural of nouns [182], the relative frequency of non-thematic root verbs [298], the functional importance of verbs with nasal affix [324, 326, 353], and the inflection of the verbs in *na* according to the *hi*-conjugation [353]. There are also a number of lexical archaisms, such as the more primitive meaning ‘undressing, going to bed’ of Hittite *nekuz* as compared with IE *nokt* ‘night’ [115] and the existence of an active *eszi* ‘he sets’ beside the middle *esa*, *esari* : Skt. *āste*, Gk. *ἵσται* ‘he sits’.¹²

9. The phonetic differences between IH and IE that are assumed in this book may be stated in the following formulae.

(1) IH *h* is lost in IE [144].

(2) An IH short vowel before *h* plus a consonant appears in IE as a long vowel [103b].

(3) IH *k*, *kh*, *g*, *gh* were palatalized before front vowels in pre-IE, and by IE times the original distribution of the palatalized and unpalatalized forms had been much disturbed by analogy. The reason for assuming this process and placing it in the pre-IE period is that Hittite shows no trace of it; but it must be admitted that this is not proof.

¹² For a fuller statement of these archaisms, see Lang. 9. 1–11.

Hittite may have obscured an inherited distinction precisely as the western IE languages did [111-113].¹³

(4) The IH alternation of *kw, khw, gw, ghw* + vowel with *ku, khu, gu, ghu* + consonant was largely obscured in IE, and still more in the historical IE languages, by dissimilative loss of *w* or of *u* (e.g. Gk. *κίς*, probably from *oŭ κίς*, Skt. *krūras* : Hittite *kurur* < IH *kurūr-*), and by analogical processes which probably cannot be traced in detail with the existing evidence. Since Hittite shows instances of the same kind of dissimilative loss (e.g. *kwiski* < **kwiskwi*, *hwekzi* < **hwekūtī*), it probably began in IH times.¹³

(5) IH *tst, dzd*, etc. > IE *st, zd*, etc. [126].¹⁴

(6) IH final *ts* > IE *s* [143bc].

10. It is quite certain that Luwian [3] is closely related to Hittite, and no doubt an exhaustive study of even the meager Luwian material now known will eventually contribute a good deal to our understanding of Hittite grammar. Sommer¹⁵ has recently made it probable that the Luwian verb system included these endings:

	Present	Preterit
1 s.	- <i>wi</i>	- <i>ha</i>
3 s.	-(<i>t</i>) <i>ti</i>	-(<i>t</i>) <i>ta</i>
3 pl.	- <i>nti</i>	- <i>nda</i>

A very little more (and more certain) material of this sort would make it necessary to include a treatment of Luwian in a comparative Hittite grammar. For the present, however, an attempt to do so would probably lead to confusion. For similar reasons I have ignored the probable relationship (by common descent either from IH or from an earlier stage of the parent speech) of Hittite with hieroglyphic "Hittite", Lycian, Lydian, and Etruscan.¹⁶

11. Petersen¹⁷ notes some remarkable points of agreement in phonology and morphology between Hittite and Tocharian. Quite possibly we shall have to recognize a peculiarly close relationship between those

¹³ Lang. 6. 213-28. A thorough study of the IE material from this point of view is badly needed.

¹⁴ Kent, Lang. 8. 18-26, who, however, does not explicitly place the change *tst* > *st* in pre-IE.

¹⁵ AU 62 fn. 1, 108, 231, 389.

¹⁶ Hrozný, SH 191-3, ZA NF 4. 171-84; Friedrich, Real. Vorg. 1. 141, Hethitisch 70, 74-6; Fiesel, Etruskisch 64, 79; Kretschmer, Glotta 14. 300-19; Sturtevant, Lang. 1. 69-75, TAPA 59. 48-56; Meriggi, RHA 2. 1-57; Hrozný, Les Inscriptions Hittites Hiéroglyphiques, and references.

¹⁷ Lang. 9. 12-34.

languages, even to the point of inserting in the stemma [6] a primitive Tocharo-Hittite somewhere along the line labeled pre-Hittite. At the present moment, however, Tocharian historical and comparative grammar has not progressed to such a point that the evidence from that language can be used systematically. If Petersen's attractive suggestion is generally adopted, the Tocharian evidence will some day modify not a few of our conclusions.

12. An even stronger case can be made out for ignoring here the possible relationship between IE and Hamito-Semitic. If this hypothesis is correct our primitive IH should be appreciably nearer than primitive IE to primitive Hamito-Semitic. Sound method demands, however, that both IH and HS shall be reconstructed as completely as possible on the evidence presented by their respective descendants before the attempt is made to reconstruct their common ancestor. If and when the time comes for this task we may expect our reconstructed IH and HS to be considerably changed, but that is not a reason for reversing the program. In this book, then, no comparison will be instituted with Semitic or Egyptian, except in case of loanwords.

CHAPTER II

THE SYSTEM OF WRITING

13. The Hittite documents are written in cuneiform characters which bear a considerable resemblance to those of other documents of about the same date, especially the Tell el-Amarna letters of the fourteenth century.¹ In many respects, however, they differ from all other known cuneiform texts. Frequently they show innovations which can with more or less probability be ascribed to the Hittites themselves (e.g. the use of the GEŠTIN-sign in the phonetic value *wi* [27, fn. 30], the use of non-phonetic vowels to make possible the writing of consonant groups [30], and the thorough confusion of signs for voiced and voiceless stops [53]); but there are also several remarkable archaisms in the Boghazköi writing.² Since some of these features do not appear elsewhere as late as the foundation of the First Hittite Empire, Götze has suggested that it may be necessary to assume as a connecting link a still undiscovered variety of cuneiform writing.

14. We have many Akkadian documents from Eastern Asia Minor belonging to the latter part of the third millennium BC. These Cappadocian tablets, as they are called, comprise letters and business records of several mercantile establishments of the town of Kanesh, which has been identified with the modern Kül Tepe,³ about a hundred miles south-east of Boghazköi. A colony of Assyrian or Babylonian traders maintained itself at this point for something like a hundred years shortly prior to 2000 BC, although the date and source of the colonization are still matters of controversy.⁴ One might expect to find that the Hittites got the cuneiform system from these their nearest known Akkadian neighbors, but no scholar believes that they did. Thureau-Dangin,⁵ for instance, groups the Cappadocian syllabary with the Assyrian, and the Hittite with that of the Tell el-Amarna letters.

¹ Thureau-Dangin, *Le Syllabaire Accadien* pp. IV f., sets up one variety of cuneiform writing, which he calls "le syllabaire accado-hittite", to include the documents from Tell el-Amarna and Boghazköi.

² Forrer, 1 BoTU 1-3; Götze, ZA NF 6. 70-3.

³ Hrozný, Syria 8. 1-12.

⁴ See most recently, Weidner, BoSt. 6. 57-99; Lewy, *Studien zu den Altassyrischen Texten aus Kappadokien* 33-47; Hrozný, AOr. 4. 112-17.

⁵ *Le Syllabaire Accadien* pp. III-IV. Cf. Forrer, ZDMG 76. 186.

The differences between the two systems are striking, and certain of them prove beyond a doubt that the Hittites did not get their writing from the merchants of Kanes either directly or indirectly. Thus the Cappadocian tablets make little use of determinatives other than the god-sign, while the Hittite scribes follow the general Akkadian usage in this respect; the double writing of consonants is avoided by the Cappadocians but very common in Hittite; in Cappadocian the sign *PA* scarcely occurs, *BA* being commonly used in its place, while the Boghazköi documents make very frequent use of *pa* even in places where *ba* might be expected; other signs which are either very rare or totally lacking in Cappadocian but common in Hittite are *ap*, *te*, *ka*, *ne*, and *up*.

15. There are, however, some similarities between Cappadocian and Hittite writing that cannot be ascribed to chance. Some of these, such as the tendency to simplify the system by using a single sign in a single value where standard usage employed several signs in the same value or one sign in several values, may be due to remoteness from the scribal schools. But there remain certain peculiarities which must apparently be ascribed to a common linguistic substratum.



16. Neither the Cappadocian nor the Hittite syllabary makes any distinction between *pu* and *bu* or between *pi* and *bi*; but, since in early Akkadian also the signs *BU* and *BI* served as well for *PU* and *PI*, there would be no significance in this fact if it stood alone. Early Akkadian, however, distinguished between *BA* and *PA*, while the Cappadocian scribes use *BA* to the practical or complete exclusion of *PA* and the Hittites use *pa* far more frequently than *ba*—almost exclusively in native Hittite words. Furthermore Cappadocian prefers *D* and *G* to *T* and *K*, while Hittite usage prefers *ki*, *ku*, and *ti* to *gi*, *gu*, and *di*, and employs side by side, but with much confusion, *ga* and *ka*, *da* and *ta*, *du* and *tu* [53]. In detail the two systems differ in their treatment of the stop-signs; but they agree in showing a pretty complete confusion of the voiced and voiceless orders. We must conclude that the natives of Eastern Asia Minor did not hear the distinction which Akkadian presented between *b* and *p*, *d* and *t*, *g* and *k*; to them each pair stood for a single sound, and, in accord with their treatment of other parts of the syllabary, they independently drifted toward a simpler system. That this is true is shown rather clearly by the fact that the neighboring Mitanni also found it impossible to keep these pairs of Akkadian signs distinct;⁶ the articulation of the mutes was similar in Eastern Asia Minor and in North-Western Mesopotamia.

⁶ This is not evidence for relationship of Hittite and Mitannian, as Weidner, Stud. 13-25, thought. It points rather to an early linguistic unity in the entire

17. There is some evidence for a similar state of affairs in regard to the sibilants *s* and *š*. The syllabary provides means for distinguishing the sounds, but the two sets of signs are confused both in Hatusas and in Kanesh. The Hittites preserve the old dualism in writing Akkadian, but with occasional blunders, and in writing their own language they use only the signs containing *š*. The Cappadocian tablets also preserve the old distinction in general, but consistently use the sign *SI* for *ŠI*. The situation is most easily understood if it is assumed that the people of Asia Minor pronounced only one sibilant; see [60].

18. In spite of this secondary assimilation to the practice of the Cappadocian tablets, the Hittite system must be traced to that of early Babylonia, probably through the mediation of some northerly community whose identity is still unknown [13]. The Akkadian texts discovered at Boghazköi and Akkadian words and phrases in the Hittite texts themselves follow the early Babylonian system in general, although there are many simplifications and other differences in detail.

19. The most ancient part of the system consists of ideograms or signs whose meaning is relatively independent of any particular language. These signs are usually represented in transliterated Akkadian texts by the corresponding Akkadian word, although such a practice involves putting a considerable amount of interpretation into the text itself. When ideograms occur in Hittite texts there would be no point in representing them by Akkadian words, and we often cannot supply the corresponding Hittite word. In many instances the only possible procedure is to set down the Sumerian word, and it has become customary to do this consistently. Hence we represent the ideogram




 (archaic ) by the Sumerian word ŠU although it was merely a

— way of writing Hittite *kesar* 'hand'. For convenience we print Sumerian words and parts of words in straight capitals to distinguish them from Akkadian and Hittite, which we print with capital and lower case italics respectively.

Ideograms for numerals are usually transliterated by numerals instead

region. Possibly Mitannian is a survivor of the old stock, but that is not a necessary inference. Whether the possession of a single order of mutes by pre-Greek Cyprian and by Elamite indicates a far wider extension of this linguistic stock is a question quite outside our present task. Petersen, *Lang.* 9. 15-23, argues from the similar reduction of the original stops to the triad *k, t, p* in Tocharian that Hittite and Tocharian are closely related; but the correspondence of Hittite with its immediate neighbors tends to weaken the cogency of his reasoning.

of by Sumerian or Akkadian words. In this book Arabic numerals are used for this purpose.

19a. Here may be mentioned a symbol which occasionally serves as a word divider in various Akkadian texts, but is frequent in a very different value in the Tell el-Amarna and Hittite texts. This sign consists of one or two diagonal wedges (, ). In the Tell el-Amarna letters it often stands before a West Semitic gloss on some ideogram or Akkadian word in the text, e.g. EGIR. ŠU  AH.RU.UN.Ū (245. 10 Knudtzon), where each word means 'behind him'. On account of this use the sign is sometimes called the *glossenkeil*. In the Hittite texts, however, it never stands before a gloss. It sometimes heads a line set in from the margin, or serves as a mark of punctuation (e.g. KUB 14. 1. 1. 3), but frequently it stands before a word which is required in its context and which might otherwise seem to the modern reader in no way remarkable. Forrer (ZDMG 76. 215 f.) noticed that a number of these words occur also in Luwian passages, and he assumed that the function of the wedge was to mark the following word as Luwian.⁷ Sommer has adopted this hypothesis with striking and plausible results,⁸ although he thinks that words marked with the *glossenkeil* may belong to other foreign languages. Probably he is right, but in the present state of our knowledge one should not be too confident that the scribes could distinguish foreign words from infrequent native words.⁹

20. In addition to the ideograms Sumerian writing employed a number of determinatives (classifiers) which were prefixed (in several instances suffixed) to the word signs although they were not read in any way.¹⁰ Thus the Sumerian word sign DINGIR 'god' (abbreviated D) is prefixed to the name of a god; the numeral for 'one', a vertical wedge (transliterated I), is prefixed to the name of a man; the word sign LŪ 'man' to a word designating a man's occupation or social class, SAL 'woman' to the name of a woman or a designation of a woman's occupation. Just so UZU 'flesh, part of the body' may be prefixed to such a word as ŠU 'hand'. It is customary to write such a determinative above the line in transliterating (^{UZU}ŠU).¹¹

⁷ Forrer thought that this was done because certain cuneiform signs had a different value in Luwian, but the specific differences that he alleged are improbable.

⁸ Sommer, AU 50 f., 107 f., and Index 458. Cf. [10].

⁹ The 'glossenkeil' occurs before an ideogram in KUB 8. 53. 6.

¹⁰ Possibly they were sometimes pronounced in Sumerian; see Gadd, Sumerian Reading Book 13. Certainly they were not pronounced in Hittite.

¹¹ Assyriologists usually represent determinatives by the construct state of the corresponding Akkadian word (*amēl* instead of LŪ, *šer* for UZU, etc.), and this is the practice in some published transliterations of Hittite texts.

21. Sumerian did not always indicate the distinction between singular and plural, as Indo-European and Semitic languages do, but it had several plural signs that might be appended to nouns if desired, and several of these were taken over by the Akkadians. In Hittite texts we find 'hands' written either ŠU.MEŠ or ŠU.Ī.A.

Aside from the plural signs MEŠ and Ī.A there is only one feature of Sumerian grammar that often needs to be taken into account in reading the documents from Boghazköi. A dependent word regularly follows the word upon which it depends; thus DUMU 'son' and LUGAL 'king' are combined in the order DUMU.LUGAL to mean 'king's son'. SAL.LUGAL 'queen' properly means 'wife of a king' not 'female king' or the like. LUGAL.GAL is 'great king', but GAL.LÚ.MEŠ.BANŠUR is 'chief of the table men'.

22. In Akkadian texts a word might be written by an ideogram which was to be read by the corresponding Akkadian word, or the Akkadian word itself might be written with phonetic signs; Akkadian QĀTU 'hand' might be written ŠU or QA.TU or (more accurately) QA.A.TU. A determinative might be prefixed to a phonetically written Akkadian word (^{UZU}QA.TU), and if a word was written by an ideogram its Akkadian ending might be indicated by a phonetic complement (ŠU.TU = QĀTU, while the corresponding genitive might be written ŠU.TI = QĀTI). In writing their own language the Hittites employed ideograms, determinatives, and plural signs in the same way as in writing Akkadian.

23. They also introduced into the Hittite text phonetically spelled Akkadian words and Sumerian ideograms with Akkadian phonetic complements. Such Akkadian tags stood for Hittite words and were so interpreted by the reader, precisely as if they were ideograms; ŠU, QA.TU, and ŠU.TU in a Hittite text represent Hittite *kesar* 'hand', and are so to be read.

The very frequency of Akkadian words in Hittite texts indicates that they are purely graphic, and so does the fact that they retain their Akkadian inflection. Genuine loan words behave quite differently; thus *sankunis* 'priest' must come from Akkadian ŠANGŪ 'priest',¹² and the noun **tarkumas* or **tarkumis* which is implied by the verbs *tarkumai-* and *tarkumiya-* 'interpret' must come from Akkadian TAR-GUMĀNU 'interpreter',¹³ but these words show Hittite phonetics and morphology. Just so *ampasi* 'in the park' and *keltiya* 'in the

¹² Götze, Hatt. 59 f.

¹³ Friedrich, ZA NF 3. 183.

forest' show Hittite declension, although from Akkadian *AMBASSU* and *KILTU*.¹⁴ The practice of pronouncing Hittite where Akkadian words were written furnishes the only possible explanation of Hittite phonetic complements attached to Akkadian words; e.g. *GA.AN.NU.UM-it*¹⁵ 'with a wine jar', *EL.LAM-aš* 'a free man', *DINGIR.LIM-ni* 'to the god'. Equally cogent proof is furnished by the consistent writing of enclitics after *UL* = *nata* 'not' in the form required by the latter word; e.g. *Ū.UL-ya* instead of *Ū.UL-la*, *Ū.UL-at* instead of *Ū.UL-la-at* or *Ū-la-at*. The occasional omission of *ANA* or *INA* before Akkadian genitives functioning as Hittite datives [24b], e.g. *QA.TI.ŠU.NU* 'into their hands' (KBo. 6. 34. 3. 1),¹⁶ points the same way; as does also a neuter adjective modifying Akkadian *DĪNU* = Hittite *hanesar* 'court, trial' (KUB 14. 3. 4. 46). A further indication that Akkadian words in the Hittite texts are on a par with Sumerian ideograms is furnished by such an amalgamation as *BE.LU.MEŠ.YA* 'my lords' (KBo. 4. 4. 3. 24).¹⁷

24. To a certain extent the scribes employed Akkadian morphology and syntax in writing Hittite, and so we must note certain features of Akkadian grammar.

24a. The Akkadian noun has three cases in the singular: nom. *QĀTU*, gen. *QĀTI*, acc. *QĀTA*. A final *M* may be appended to any of these forms without affecting the meaning (*QĀTUM*, *QĀTIM*, *QĀTAM*). There is also a form known as the construct state, which is used before a modifying genitive or a possessive suffix; it consists of the nom. minus the final vowel and sometimes with a vowel inserted before the last consonant (*QĀT* beside *QĀTU*, *AŠAR* beside *AŠRU* 'place'). Thus we have *QA.AT^DUTU.ŠI* (i.e. *QAT^DŠAMŠI*) 'the hand of my majesty' (literally 'of my sun-god') and *A.ŠAR.ŠU.NU* 'their place'. Even in Akkadian texts these inflectional forms are sometimes confused and such confusion is not uncommon in Hittite texts. Although the case forms tend to be used in their normal values, any one of them may be used in place of any other; e.g. *DINGIR.LIM* is used as a nom. in KUB 9. 31. 2. 45, *ABU* as a gen. in KBo. 4. 12. 1. 5, and *ABI* as a nom. in KUB 14. 1. 1. 6. The use of the construct state in the Hittite

¹⁴ Sommer, BoSt. 10. 62 f. Consult Akkadian dictionaries under *KIŠTU* or *QIŠTU*.

¹⁵ I.e. *KANNU*.

¹⁶ Other examples in Friedrich, Vert. 2. 38 f.

¹⁷ Zimmern, OLZ 25. 297; Götze, Madd. 119 f.; Friedrich, Vert. 2. 38-41; Sommer, AU 88 fn. 2.

documents is never obligatory; thus *ABU* 'father' gives *A.BU.ŠU*, *A.BI DUTU.ŠI*, etc.

24b. So meager a case system required frequent use of prepositions, and a number of these occur in the Hittite texts; but they can rarely be understood as representing separate Hittite words. In Hittite the syntactic and local relationships of nouns are usually denoted by the cases [185–190], and it is clear that the Akkadian prepositions are merely graphic signs of Hittite cases (*ANA ŠU* = *ANA QĀTI* = *kesri* 'in the hand', *ŠA KUR.TI* = *ŠA MĀTI* = *utneyas* 'of the country'). Thus *ŠA* 'of' indicates the genitive case; *ANA* 'to', the dative; *INA* 'in, into, from', the dative and rarely the ablative;¹⁸ *AŠŠUM* 'for', the dative; *IŠTU* (also *IŠTU ŠA*) 'from, with', the ablative or instrumental; *QADU* 'with', the instrumental. An Akkadian prepositional phrase frequently stands in agreement with a Hittite case form; e.g. *kel ŠA KUR.KUR.TIM* 'of these countries', *tuk ANA MADDU-WATTA* 'to you, Matuwatas'. If two or more nouns written in Sumerian or Akkadian stand in apposition, the preposition is written only before the first.¹⁹

24c. In the plural the Akkadian noun usually has but a single form. In the Hittite documents the commonest plural suffixes are *Ē*, (*Ā*)*TU*(*M*), and (*Ā*)*TI*(*M*). As a result of writing *TIM* after an ideogram (e.g. *KUR.KUR.TIM* = *MATĀTIM* = *utne* 'countries') the Hittite scribes came to treat the syllable as a mere plural sign equivalent to Sumerian *MEŠ* and *ĪI.A*. Hence we find ^{LÚ}*MES* *SANGA.TIM* = *ŠANGĒ* = *sankunes* 'priests', *BE.LU.TIM* and *BE.LU.MEŠ.TIM* = *BĒLE* = *eshes* 'lords', etc.²⁰

24d. The Akkadian possessive suffixes *-I*, *-YA* 'my', *-KA*, *-KI* (feminine) 'tuus', *-ŠU* 'his', *-ŠA* 'her', *-NI* 'our', *-KUNU* 'vester', *-ŠUNU* 'their'²¹ are often appended to ideograms and to phonetically written Akkadian nouns. There is some confusion between *-ŠU* and *-ŠUNU*; the former is occasionally used with a singular noun to mean 'their', and the latter with a plural noun to mean 'his'. In Akkadian *Š* became *S* after a dental, and in the Hittite texts the resultant group *TS* is often written *Z* or *ZZ* (*QA.AZ.ZU* 'his hand', *Ē.ZU* = *BIZU* 'his house').

¹⁸ E.g. KUB 11. 35. 1. 13.

¹⁹ Sommer, AU 130 f.

²⁰ Sommer, AU 343.

²¹ The feminines are all rare, the corresponding masculines being used instead. I have not seen the third pl. feminine *-ŠINA*.

24e. The Akkadian verb system is much less completely represented. The singular of the preterite is relatively frequent; it may be illustrated by the following forms (I give the infinitives also for the convenience of those who may wish to consult a dictionary):

<i>ŠAPĀRU</i>	<i>ŠABĀTU</i>	<i>QABŪ</i>	<i>NADĀNU</i>	<i>EDŪ</i>
'send'	'take'	'say'	'give'	'know'
1. <i>AŠPUR</i>	<i>AŠBAT</i>	<i>AQBĪ</i>	<i>ADDIN</i>	
2. <i>TAŠPUR</i>		<i>TAQBĪ</i>		
3. <i>IŠPUR</i>	<i>IŠBAT</i>	<i>IQBĪ</i>	<i>IDDIN</i>	<i>IDĪ</i>

Other verb forms occur here and there, e.g.: 3 pl. pres. *INAKKIZU* (properly *INAKKISU*) 'they cut off' from *NAKĀSU*, 3 sing. permanent *QATI* 'it is ended' from *QATŪ*, imperative *ŠUPUR* 'send' from *ŠAPĀRU*, 3 sing. pres. causative *UŠKĒN* 'he bows down' and 3 pl. *UŠKĒNU* 'they bow down' from *KĀNU* 'be fixed'.

24f. Akkadian proper names are rarely declined, but they frequently end in one of the vowels that in other nouns function as case endings. In the Hittite texts proper names, whatever the language of their origin, are frequently treated in the Akkadian fashion. Hittite names appear in their stem form; but, since the stem cannot otherwise function as a word any more than in the IE languages, we must assume that the forms before us are in origin case forms. From the *a*-stems we have datives [195a] and accusatives [57] in final *a*, and from the *i*-stems datives and accusatives in final *i*. Since both *a* and *i* are frequent finals of Akkadian proper names, these forms were utilized by the scribes, and they set the model for other Hittite names whenever the scribes chose to give their writing an Akkadian color.

25. The employment of the Akkadian cuneiform system for writing Hittite brought about some extraordinary linguistic combinations. Not only do we find Sumerian and Akkadian words and phrases intermingled with the Hittite material, but two or even three languages may be combined in the writing of a single word. There are in fact eight different methods of writing in the Hittite texts, which may be illustrated as follows:

1. Sumerian ideogram: *ŠU* = *kesar* 'hand'.
2. Sumerian determinative: *UZUŠU* = *kesar* 'hand'.
3. Akkadian word: *QA.TU* = *kesar* 'hand'.
4. Hittite word: *ki-eš-šar* = *kesar* 'hand'.
5. Sumerian with Akkadian phonetic complement: *ŠU.TU* = *QĀTU* = *kesar* 'hand'.
6. Sumerian with Hittite phonetic complement: *ŠU-an* = *kesaran* (acc.) 'hand'.

7. Akkadian with Hittite phonetic complement: *ŠUM-an* = *lāman* 'name'.
8. Sumerian with Akkadian phonetic complement and Hittite phonetic complement: *DINGIR.LIM-iš* = *ILIM-is* 'god' (the Hittite word is not certainly known, but it must be an *i*-stem).

26. The Akkadian system of phonetic signs is exceedingly complicated. In many instances it has several ways of writing the same syllable; there are 8 signs for *TU*, 9 for *SA*, 10 for *GI*, 11 for *GUR*, and 13 for *DU*. On the other hand many signs have more than one phonetic value, and a few have a dozen or more. This luxuriance was pruned down by the Hittite scribes so far that only 6 of the Akkadian duplicates for one and the same syllable remain. Since, however, the Hittites made no distinction between voiced and voiceless stops [53] and had nothing like the Semitic emphatic consonants we must add 11 new duplicates (*ba* = *pa*, *ga* = *ga* = *ka*, etc.), giving a total of 17 in the Hittite syllabary. Only 12 signs carry more than one value in Hittite, and most of these show much simplification as compared with Akkadian. Thus *tar*, *haš* has no less than 15 phonetic values in Akkadian and *pít*, *píd*, *pát*, *pád*, *be* has 17.

27. The following list is arranged alphabetically. If a sign has more than one phonetic value all are given in the alphabetic position of the commonest, and each of the others is listed in parentheses at its proper place, where it is followed by a cross-reference. Accents and sub-numerals, here and elsewhere in this book, are used to distinguish the signs from homophones occurring in any type of cuneiform writing; the system here followed is that proposed by Thureau-Dangin, *Le Syllabaire Accadien* (Paris, 1926) and *Les Homophones Sumériens* (Paris, 1929), although I write *ya* where he writes *ia*. I differ from Thureau-Dangin also in using only the common values of signs containing mutes; I write *da* instead of *td*, although I believe that the sound *d* did not exist in Hittite. In this way alone can I avoid misleading Indo-Europeanists as to the real state of the evidence. In general the list is based upon Forrer, 1 BoTU 25-36, and Delaporte, *Syllabaire Hittite Cunéiforme*. A few variations from them are mentioned in footnotes.

The values here given are those which are used in the syllabic transcriptions in this grammar. Most of them are familiar to Assyriologists and all have been used in transliterating Hittite texts. We shall find presently that some of the signs have also other values in Hittite (e.g. *ku* = *kw*, *u* = *we*, *i* = *y*); but it would merely confuse the record to introduce these into our syllabic transcriptions.

Table of Signs in the Hittite Syllabary

1. <i>a</i> (<i>ad</i> : see <i>at</i>) (<i>ag</i> : see <i>ak</i>)	23. <i>eš</i>
2. <i>aḥ, iḥ, uḥ</i>	24. <i>eš₄</i> ²²
3. <i>ak, ag, aq</i>	25. <i>ga</i>
4. <i>al</i>	26. <i>gal</i>
5. <i>am</i>	27. <i>gaz</i>
6. <i>an</i>	28. <i>gi</i>
7. <i>ap</i> (<i>aq</i> : see <i>ak</i>)	29. <i>gul</i>
8. <i>ar</i>	30. <i>gur</i>
9. <i>aš</i>	31. <i>ḥa</i> (<i>ḥad</i> : see <i>pa</i>)
10. <i>at, ad</i>	32. <i>ḥal</i>
11. <i>az</i>	33. <i>ḥar, ḥur, mur</i> (<i>ḥaš</i> : see <i>tar</i>) (<i>ḥat</i> : see <i>pa</i>)
12. <i>ba</i> (<i>be</i> : see <i>pīt</i>)	34. <i>ḥé</i>
13. <i>da</i> (<i>daḥ</i> : see <i>tuḥ</i>) (<i>dak</i> : see <i>ták</i>)	35. <i>ḥi</i>
14. <i>dam</i> (<i>dan</i> : see <i>kal</i>)	36. <i>ḥu</i> (<i>hur</i> : see <i>ḥar</i>)
15. <i>dé</i>	37. <i>i</i> (<i>id</i> : see <i>it</i>) (<i>iḥ</i> : see <i>aḥ</i>)
16. <i>dí</i>	38. <i>ik, ig, iq</i>
17. <i>dir</i>	39. <i>il</i>
18. <i>du</i> (<i>duḥ</i> : see <i>tuḥ</i>)	40. <i>im</i>
19. <i>dur</i>	41. <i>in</i>
20. <i>e</i>	42. <i>ip</i>
21. <i>el</i>	43. <i>ir</i>
22. <i>en</i>	44. <i>iš</i>
	45. <i>it, id</i>
	46. <i>iz</i>

²² *eš₄*. This is the sign MEŠ, which in Hittite texts as in Akkadian most commonly functions as a Sumerian plural sign. Hittite plural nouns, adjectives, and pronouns commonly end in *es* (written *eš*), and so this sign often demanded that phonetic rendering (e.g. UKÛ. MEŠ = *an-tu-uḥ-še-eš* = *antuhses* 'men'). Consequently it is occasionally written instead of *eš* in Hittite plurals (e.g. *ḥu-u-ma-an-te-eš₄* = *humantes* 'all', *ku-i-e-eš₄* = *kues* 'who'). Finally the sign came to be used in place of *eš* in other positions also, e.g. *ḥa-an-ne-eš₄-šar* (KUB 19. 67. 1. 2—variant *DI-eš-šar*), *HUL-eš₄-šir* (KUB 21. 17. 1. 4) = *italaweser*. See Sommer, AU 32. I follow Götze, NBr. 16 fn. b in transliterating *eš₄*. Friedrich, Vert. 2. 72. 36 etc., writes (*m*)*eš*.

- | | |
|---|---|
| 47. <i>ka</i>
(<i>kad</i> : see <i>kat</i>) | 69. <i>me</i> |
| 48. <i>kal, dan</i> | 70. <i>mi</i> |
| 49. <i>kam</i> | 71. <i>miš</i> |
| 50. <i>kán</i> | 72. <i>mu</i>
(<i>mur</i> : see <i>har</i>) |
| 51. <i>kap</i> | 73. <i>na</i> |
| 52. <i>kar</i> | 74. <i>nam</i> |
| 53. <i>kat, kad, kit, kîd</i> ²³ | 75. <i>nap</i> |
| 54. <i>ki</i>
(<i>kîd</i> : see <i>kat</i>) | 76. <i>ne</i> |
| 55. <i>kir, piš</i> | 77. <i>ni</i> |
| 56. <i>kiš</i>
(<i>kit</i> : see <i>kat</i>) | 78. <i>nim</i> |
| 57. <i>ku</i> | 79. <i>nir</i> |
| 58. <i>kum</i> | 80. <i>nu</i> |
| 59. <i>kur</i> | 81. <i>pa, hat, had</i>
(<i>pád</i> : see <i>pít</i>) |
| 60. <i>la</i> | 82. <i>pal</i> |
| 61. <i>lam</i> | 83. <i>pár, maš</i> ²⁵
(<i>pát</i> : see <i>pít</i>) |
| 62. <i>li</i>
(<i>lîk</i> : see <i>ur</i>) | 84. <i>pî</i> ²⁵
(<i>pîd</i> : see <i>pít</i>) |
| 63. <i>liš</i> | 85. <i>pîl</i>
(<i>pîr</i> : see <i>ut</i>)
(<i>piš</i> : see <i>kir</i>) |
| 64. <i>lu</i> | 86. <i>pît, pîd, pát, pád, be</i> ²⁶ |
| 65. <i>ma</i> | 87. <i>pu</i> |
| 66. <i>maḥ</i> ²⁴ | 88. <i>pur</i> |
| 67. <i>man</i> | 89. <i>qa</i> |
| 68. <i>mar</i>
(<i>maš</i> : see <i>pár</i>) | |

²³ Götze, *Madd.* 60, shows that the sign *kat* alternates with *ki-it*, never *ka-at*, *ga-at*, in the 2 pl. of the iterative-duratives. The IE languages show that the vowel *e* belongs here, but to transliterate *ket* would be to go beyond the evidence of the writing.

²⁴ *maḥ*. The use of this sign in a phonetic value is familiar in Akkadian and recognized by Forrer for Akkadian words in the Boghazköi texts. It is used in the Hittite word *me-maḥ-ḫu-un* 'I said' (KBo. 3. 42. 1. 6).

²⁵ On the values *pár* and *pî* instead of *bar* and *bi*, see Weidner, *Stud.* 22 f. The value *maš* is certain perhaps only in a proper name; see Friedrich, *Vert.* 1. 95 fn. 1; Götze, *ZA NF* 6. 70.

²⁶ *pît, pîd, pát, pád, be*. Götze, *Madd.* 55 f., shows that internal evidence requires the first four values. In Akkadian a very common value is *BE*, and it occurs in Akkadian words in the Boghazköi tablets. I therefore write *be* in words whose etymology requires the vowel *e* and no following consonant, e.g. *be-da-a-an-zi* = *pî-e-da-a-n-zi* = *petanzi* 'they bring', *be-da-a-it* = *pî-da-a-it* = *petait* 'he

90. <i>ra</i>	112. <i>tim</i>
91. <i>ri, tal</i>	113. <i>tin</i> ²⁷
92. <i>ru</i>	114. <i>tir</i>
93. <i>ša</i>	115. <i>tu</i>
94. <i>šaḥ</i>	(<i>tu</i> ₄ : see <i>tum</i>)
95. <i>šal</i>	116. <i>túḥ</i> , ²⁸ <i>taḥ</i> , <i>daḥ</i>
96. <i>šap</i>	117. <i>túl</i> .
97. <i>šar</i>	118. <i>tum</i> , <i>tu</i> ₄
98. <i>še</i>	119. <i>u</i>
99. <i>ši</i>	120. <i>ú</i>
100. <i>šir</i>	(<i>ud</i> : see <i>ut</i>)
101. <i>šu</i>	(<i>ug</i> : see <i>uk</i>)
102. <i>šú</i>	(<i>uḥ</i> : see <i>aḥ</i>)
103. <i>šum</i>	121. <i>uk</i> , <i>ug</i> , <i>uq</i>
104. <i>šur</i>	122. <i>ul</i>
105. <i>ta</i>	123. <i>um</i>
(<i>taḥ</i> : see <i>túḥ</i>)	124. <i>un</i>
106. <i>ták, táq, dak, dag</i>	125. <i>up</i>
(<i>tal</i> : see <i>ri</i>)	(<i>uq</i> : see <i>uk</i>)
(<i>tam</i> : see <i>ut</i>)	126. <i>ur</i> , <i>lik</i> , <i>lig</i>
107. <i>tap</i>	127. <i>úr</i>
108. <i>tar, ḥaš</i>	128. <i>uš</i>
109. <i>taš</i>	129. <i>ut</i> , <i>ud</i> , <i>pir</i> , <i>tam</i> ²⁹
110. <i>te</i>	130. <i>uz</i>
111. <i>ti</i>	131. <i>wa</i>

brought'. For the single consonant in *peta*- 'bring', see [66]. For etymological reasons I also prefer this transcription for the particle of identity [128]. I cannot adopt Götze's suggestion that the values *pát* and *pít* (often to be read *pet*) may be harmonized as *pāt*.

²⁷ The sign very frequently stands for *ten*, and many scholars transcribe *tén*; but cf. fn. 39. Götze, *Madd.* 56, 60 fn. 1, raises the question of ascribing to the sign also the value *tán* "oder noch besser . . . *tān*", but this seems quite unnecessary.

²⁸ *túḥ*, *taḥ*, *daḥ*. The value *túḥ* is not recorded for the sign by Forrer or Delaporte or by Thureau-Dangin, *Le Syllabaire Accadien* 17. It is proved by the orthography *tu-uḥ-ša-an-ta* 'they take away' (KBo. 6. 3. 2. 10) beside 3 sing. midd. *túḥ-uḥ-ša* (KBo. 4. 9. 2. 22. 31), 3 pl. act. *túḥ-ša-an-zi* (KBo. 6. 3. 2. 13), etc. It is indicated in transcription by various scholars; e.g. Sommer, *BoSt.* 10. 66; Friedrich, *ZA NF* 3. 200; Götze, *KIF* 1. 231 fn. 5.

²⁹ *ut*, *ud*, *pir*, *tam*. Forrer and Delaporte recognize the value *tam* for Akkadian words only. It occurs in Hittite *tam-e-da-ni* (KUB 21. 38. 2. 15).

132. *wi*³⁰135. *zé*133. *ya*136. *zi*134. *za*137. *zu*

28. These signs provide means for many equivalent orthographies. For example, *tametaz* 'ab alio' could have been written *ta-me-ta-az*, *tam-e-ta-az*, *ta-am-e-ta-az*, *tam-it-az*, *ta-am-it-az*, *ta-me-it-az*, etc. It is not likely, however, that any of these except the first will ever turn up in a text. In general neither a vowel sign nor an initial vowel of a syllabic sign is allowed to carry a syllable if a different orthography is available.³¹

If a word began with a vowel it was necessary to use either a vowel sign or a syllabic sign beginning with a vowel; the best that could be done was to prefix the vowel sign to the syllabic sign with initial vowel, and this is frequent (*i-it* = *it* 'go', *e-eš-zi* = *eszi* 'is', *a-ak-te-ni* = *akteni* 'you die', *u-un-na-i* = *unai* 'drives'), but there are frequent spellings with only the vowel sign or the syllabic sign with initial vowel (*a-ša-an-zi* 'they are', *a-ki* 'dies', *e-ša-ri* 'sits', *u-nu-wa-an-zi* 'they adorn', *ar-nu-uz-zi* 'brings', *ir-ma-la-aš* 'sick', *up-pa-aḫ-ḫi* 'I send'³²). Just so when a vowel follows a dissimilar vowel or when *e* or *i* follows *w* or when *e* or *u* follows *y* our rule has to be violated, and again we find a tendency to write the vowel sign before the syllabic sign (*a-ni-u-ur* = *aniur* 'performance', *ku-e-u-en* = *kweuen* 'we struck', *a-ú-ir a-ú-e-ir* = *awer* 'they saw', *ar-ša-ni-e-ir* = *arsaniyer* 'they envied', *ú-e-mi-ir ú-e-mi-i-e-ir* = *wemiyer* 'they found').

There are some exceptions to the rule even as thus limited, but in many cases a reason is apparent. Thus *am-mu-uk-aš-kán* (KUB 14. 3. 4. 41) is a pronoun with two enclitics (*amuk* + *as* + *kan* 'ego eos igitur'), and we have an etymological writing³³ in place of the usual *am-mu-uq-qa-aš-kán*. Similarly *ku-it-at* (KUB 18. 16. 2. 3, 5) represents *kwit* + *at*, *zi-ik-an* (KBo 5. 9. 2. 48) is for *zek* + *an*, and *pa-ap-ra-tar-aš* (VBoT 132. 12) is to be analyzed *papratar-as*. The unique *iš-qa-ru-*

³⁰ *wi*. The sign GEŠTIN has in Akkadian texts only the ideographic value 'wine'. The phonetic value *wi* is well established for Hittite by such orthographies as *na-a-wi* beside *na-a-ú-i*, *pa-an-ga-u-wi* beside *pa-an-ga-u-i*. See Hrozný, SH 5 fn. 5; Sommer, BoSt. 4. 12 f. In spite of its obvious convenience the new value was not very commonly employed.

³¹ Cf. Forrer, *Caucasica* 9. 1 fn. 4.

³² Words beginning with the syllabic signs *el*, *en*, *eš* are extremely rare. I can cite only *el-zi* (KBo. 6. 13. 1. 8) with variant *e-el-[zi]* (KBo. 6. 26. 1. 52), and *eš-ta* (KBo. 3. 28. 2. 5 (?), 3. 38. 1. 15). We find either *e-eš-ḫar* or *iš-ḫar* and the like.

³³ So Sommer, AU 184.

uḫ-it (KUB 25. 6. 3. 14) for common *iš-qa-ru-ḫi-it* = *iskaruhet* is influenced by the nom. *iš-qa-ru-uḫ* = *iskaruh*, a vessel for wine. Sometimes a word so written that an initial vowel of a syllabic sign unnecessarily carries a syllable is irregular in another way also, and then we are justified in considering the orthography unintentional; *kar-ap-an-zi* (KUB 2. 15. 5. 2) = *karpanzi* 'they muster' is a word that usually shows *pp* instead of *p* if vowels are written before and after the consonant [66], and so the scribe probably intended to write *kar-ap-pa-an-zi* (as in KUB 25. 23. 1. 40).

29. Here we may mention the occasional use of phonetic complements after syllabic signs beginning and ending with a consonant. Examples are *pi-nir-ir* (KBo. 4. 2. 2. 20) = *pinir* (i.e. *pener*) 'they drove', *pur-u-ur-pu-ru-us* (KUB 9. 17. 23) = *purpurus*, a kind of bread, ¹*Mi-id-dan-an-na-mu-u-wa* (KBo. 4. 12. 1. 30) = ¹*Mitanamuwa*. These forms would not be read *pinirir*, etc., since that would make an initial vowel of a syllabic sign or a vowel sign carry a syllable unnecessarily. This use of phonetic complements occurs in Akkadian texts also.³⁴

30. Akkadian and Sumerian had no consonant groups at the beginning or end of a word and no groups of more than two consonants in the interior of a word. Hittite had many consonant groups, and they could be written only by innovations in the use of the signs. As we shall see the *z* of the signs *za*, *az*, etc. was given the value *ts* [61] and final *u* of a syllabic sign might be used for *w* [45a] so that *ku-iš* stands for *kwiš* 'who'. Aside from the help furnished by these two devices initial and final consonant groups and medial groups of more than two consonants could be written only with the addition of non-phonetic vowels. It is therefore sometimes difficult to determine whether a vowel is to be pronounced or not. There are three chief helps in making a decision.

31. Variant writings frequently disclose the presence of a consonant group. In view of the infin. *ḫar-šu-wa-an-zi* (KBo. 6. 28. 2. 22), *ḫar-aš-zi* (VBoT 58. 1. 30) must be interpreted as *harszi*. The three equivalent spellings *ḫi-in-ik-zi*, *ḫi-in-ga-zi*, and *ḫi-ik-zi* can be harmonized if all stand for *hinkzi* (i.e. *henkzi*), and other forms of the verb confirm this inference. The verb *ši-pa-an-ti* 'pours a libation' must be connected with the noun *iš-pa-an-tu-uz-zi* 'libation pourer, ladle', and so we must read *spanti* and *spantuzi*. Since the ablative usually ends in *az* we may infer that *É-ir-za* is *perz* rather than *perza* (from *per* 'house'). Just so the instrumental ending is regularly *it* (i.e. *et*), and so *ki-iš-šar-ta* (KUB 12. 63. 1. 26) must stand for *kesart* (from *kesar* 'hand, paw').

32. Etymology often supplies a more or less decisive clue. Certain

³⁴ Delitzsch, Ass. Gramm. § 23 end.

iterative-durative verbs, as *az-zi-ki-iz-zi* 'eats', *si-pa-an-za-ki-iz-zi* 'pours libations', *zi-ik-ki-iz-zi* 'places', show a vowel between the two consonants of the suffix *ske/a*; we must read respectively *azkezi*, *spanzkezi*, *zkezi*, i.e. *at-ske-tsi*, *spant-ske-tsi*, *t-ske-tsi*. An additional reason for reading *ši-pa-an-ti* as *spanti* is its etymological connection with Gk. *σπένδω* 'pour a libation' and Lat. *spondeo* 'promise'. Ehelolf, OLZ 32. 322 ff., has shown that *te-ri-ya-al-la* (KBo 5. 1. 4. 35) is equivalent to *3-ya-al-la* (Bo. 4951. 15) and to *ta-ri-ya-la* (KUB 24. 11. 3. 14); the variation of the first vowel suggests that it is not to be read and the fact that the word, whatever its meaning, begins with the stem of the word for 'three' proves that we must read *triyala*.

33. The disinclination to let an initial vowel of a syllabic sign carry a syllable often helps in detecting a consonant group; we might be sure that *kar-ap-zi*, *kar-ap-ta*, *kar-ap-du*, *kar-ap-ta-ri* represented *karpzi* 'he raises', *karpt*, *karptu*, *karptari* even if we had not from the same verb *kar-pa-an-zi* = *karpanzi*, *kar-pir* = *karper*, etc. Similar are *ḫar-ak-zi* = *harkzi* 'is destroyed' (cf. *ḫar-ku-e-ni* = *harkweni* 'we are destroyed'), *kar-aš-zi* = *karszi* 'cuts' (cf. *kar-še-ir* = *karser* 'they have cut'), *pār-aḫ-zi* = *parhzi* 'drives' (cf. *pār-ḫa-an-zi* = *parhanzi* 'they drive'), *li-in-ik-ta* = *li-ik-ta* = *lenkt* 'he swore'. Unfortunately the converse does not hold good; frequently the final vowel of a syllabic sign is to be disregarded; e.g. *ši-pa-an-za-ki-iz-zi* = *spantskezi* 'he pours libations' (*spant* + suffix *ske/a*), *ma-ra-ak-ta* = *markt* 'has cut up' (cf. *mar-ka-at-ta-ri* = *markatari* 'is cut off'), *wa-la-aḫ-zi* (usually *wa-al-aḫ-zi*) = *walhzi* 'beats' (cf. *wa-al-ḫa-an-zi* = *walhanzi* 'they beat').

34. The Hittites often introduced silent vowels into consonant groups unnecessarily.³⁵ The 3 sing. pret. *sanht* 'petiit' could be written only with silent vowels: *ša-an-aḫ-ta*, but we find also the 1 sing. pret. *sanhun* 'petii' written *ša-an-aḫ-ḫu-un* as well as *ša-an-ḫu-un*. Many forms of *karp*- 'raise' require silent vowels; e.g. *kar-ap-mi* = *karpmi*, *kar-ap-zi* = *karpzi*, *kar-ap-ta* = *karpt*, *ka-ri-ip-tin* = *karpten*; but we find also *kar-ap-pa-an-zi* = *kar-pa-an-zi* = *karpanzi*, *kar-ap-pu-un* = *karpun*, *kar-ap-pa-an* = *kar-pa-an* = *karpan*. We shall find that one purpose in many such writings is to double the consonant; for doubled stops represent original voiceless stops [66], and *h* and *z* are long by nature [69, 70]. Of the double writing of the remaining consonants, *l*, *m*, *n*, *r*, and *s* we cannot speak with confidence [71].³⁶

³⁵ Sommer, BoSt. 7. 45 f.

³⁶ Götze, Madd. 41-9, has attempted to explain the distribution of certain of these spellings on the basis of accent. As long as we are entirely ignorant of the Hittite accent, I prefer not to embark upon speculations of that kind.

35. The frequent writing of final *za* for *z* [ts] led to difficulties when a word ended in *za*; for this combination we find written *za-(aš-)ša*; e.g. *ku-na-an-za-aš-ša* . . . ^{LÜ}*ap-pa-an-za-aš-ša* (KBo. 4. 4. 2. 75) = *kunanz-a* . . . *apanz-a* 'both slain . . . and captured'; *e-eš-ša-na-an-za-aš-ša* (KUB 4. 1. 2. 22) = *eshananz-a* 'blood also'; *ir-ma-la-an-za-ša* (KBo. 5. 9. 1. 16) = *ermalanz-a* 'even ill'.³⁷ The prevalent double writing of *z* to indicate the inherent length of the sound group [69] made trouble in the rare instances of *tsts* [126], and a silent vowel had to be inserted; e.g. *ma-az-za-az-zi* (KUB 12. 60. 1. 7; 13. 4. 3. 76) = *mazzi* 'he endures'; *e-iz-za-az-zi* (KUB 13. 4. 4. 40 = *e-iz-za-zi* (KUB 17. 28. 4. 40) = *e-za-az-zi* (KUB 7. 1. 2. 10) = *ezzi* 'he eats'; *iš-pár-za-zi* (KBo. 5. 9. 2. 16; 5. 13. 2. 27; KUB 1. 1. 4. 88) = *iš-pár-za-az-zi* (KBo. 4. 7. 3. 32) = *sparzzi* 'he escapes'. Occasionally *aš* was inserted after *z*; the reason is obscure, but a possible inference is that it was the sibilant component of *z* that was long. Examples are *ma-az-za-aš-ta* (KBo. 3. 4. 2. 30; 5. 6. 1. 8, 29; KUB 14. 1. 1. 62) = *mazt* 'he endured, you endured'; *iš-pár-za-aš-ta* (KBo. 2. 5. 3. 12; 3. 38. 2. 24, 3. 60. 3. 4; 5. 8. 3. 32; 6. 28. 1. 16; KUB. 14. 1. 1. 57; 19. 37. 3. 20, 23; 19. 49. 1. 6) = *sparzt* 'he escaped'; *ša-az-za-aš-ta* (KUB 12. 62. 1. 17, 2. 1, 2) = *ša-a-az-ta* (KUB 17. 10. 1. 16) = *hazt* 'dried up'; *az-za-aš-te-ni* (KUB. 1. 16. 3. 34, 48) = *azteni* 'you eat'.³⁸

36. Hittite also differed from Akkadian in having diphthongs, although as far as we know at present, there were only two of them, *ai* and *au*. We may illustrate the method of writing them as follows: *šu-up-pa-i* = *supai*, dat. of *supis* 'pure'; *da-a-i* = *tai* 'places'; *šar-na-a-ú* = *harnau*, dat. of *harnaus* 'birth chair'; *a-uš-zi* = *auszi* 'sees'. The matter will be treated more in detail in [48].

37. In the Hittite texts a space is regularly left at the end of a word, although this is not customary in Akkadian. Enclitics not only have no space before them; they are often orthographically attached to the preceding word (*ku-i-ša* = *ku-iš-ša* = *kwis-a* 'quisque'). That the etymological writing was not objectionable in itself is shown by *nu-mu-kán* = *nu* + *mu* + *kan*, *nu-wa* = *nu* + *wa*, *ma-aš-ša-an-ma* = *mahan* + *ma*, etc.; but a word with its enclitics constituted a single unit and was spelled as if the whole complex were but one word. The disinclination to allow an initial vowel of a syllabic sign or a vowel sign to carry a

³⁷ Friedrich, Vert. 1. 32 f.

³⁸ Götze, Madd. 126. He summarizes the matter as follows: "Folgt auf *z* (= *ts*) entweder *a* oder *š* (= *s*), *z* selbst und *t* (doch hier nicht einheitlich), so wird graphisch *aš* bzw. *az* eingeschoben."

syllable accounts for *ma-na-at* = *man* + *at*, *zi-ga-an* = *zek* + *an*, *ki-nu-na-wa* = *kinun* + *a* + *wa*. In *nu-uš-ma-ša-at* = *nu* + *smas* + *at* the writing *uš* instead of *šu* quite obviously improves the phonetic picture, and *ša* is preferred to *aš* to avoid making the vowel of *at* carry the last syllable. The double writing of the stops in *nu-ut-ta* = *nu* + *ta*, *nu-ut-ták-kán* = *nu* + *ta* + *kan*, *nu-ud-du-za* = *nu* + *tu* + *za* is explained below [66]. I cannot account for such double consonants as those in *nu-uš-ši* = *nu* + *se*, *nu-un-na-aš* = *nu* + *nas*, *še-ir-ma-aš-ša-an* = *ser* + *ma* + *san*; but they resemble the irrational double consonants in the interior of other words [71].

38. We have so far found reason for writing the following vowels and consonants in our syllabic transcription: *a, e, i, u, y, w, k, g, q, t, d, p, b, n, m, r, l, š, z, ḥ*. This system, as noted above [27], is based upon Akkadian texts, and we must not assume without investigation that it is at any point an adequate representation of Hittite phonetics. Of course we are not likely at present to discover precisely what the Hittite speech sounds were, but we must at least review the available evidence. It will be convenient to arrange the material according to the list of transcription letters just given, except that the diphthongs will be inserted after *w* and syllabic *r* and *l* will be discussed in connection with the corresponding consonants.

a

39. Hittite *a* may be written with the vowel *a* or with any one of sixty syllabic signs. The mechanism is essentially the same as that used to write Akkadian *A*, and so we assume that the Hittite vowel was similar to the Akkadian.

In inherited words *a* represents *a* [73], *ā* [74], *e* (before *r* + cons.) [76], *o* [79], *ō* [81], *ə* [86], or *ɐ* [88]. While it is not certain that all these original sounds were pronounced alike in Hittite, I can find no good evidence for a phonetic difference. Provisionally we must, with the following two exceptions, treat Hittite *a* as a unit. (1) A syllabic sign containing *a* may be employed in writing a consonant group, the *a* not being pronounced at all [30-35]. (2) Hittite *ar* may stand for original *r* [98], *vr* [88], or *vrə* [101], *al* for *l* [100], *ɛl* [88], or *ɛlə* [101], *an* for *n* [96] or *vn* [88], and sometimes we cannot tell whether or not to pronounce the written vowel [98].

e

40a. There is a vowel sign for *e* and there are eleven syllabic signs which contain *e*, and very frequently the same sound is written with the

vowel *i* or with one or two of the thirty-seven syllabic signs containing *i*.³⁹ In Akkadian also *e* is often written with an *i*-sign,⁴⁰ although the use of *i*-signs in place of the twelve *e*-signs is there not common. Very frequently the vowel sign *e* is added to a syllabic sign containing *i* to insure the correct reading of the syllable, and not infrequently it is pleonastically written even with a syllabic sign containing *e*. In general a word or a grammatical element is to be read with *e* rather than with *i* if the *e* is ever indicated by the orthography, while the writing with an *i*-sign cannot establish the pronunciation *i* unless the word or form is very common—and sometimes not even then. An example of consistent indication of the *e*-vowel to the exclusion of all *i*-signs, is *es*- 'be' (*e-eš-mi*, *e-eš-zi*, *e-šu-un*, *e-eš-ta*, *eš-ta*, *e-šu-u-en*, *e-eš-tin*, *e-šir*, *e-še-ir*, etc.). In *mema*- 'say' the vowel *e* is nearly always indicated, although sometimes combined with an *i*-sign⁴¹ (*me-ma-aḫ-ḫi*, *me-ma-at-ti*, *me-ma-i*, *me-ma-an-zi*, *me-im-ma-an-zi*, *me-ma-aḫ-ḫu-un*, *me-mi-iš-ta*, *me-ma-aš*, *me-im-ma-aš*, *me-mi-ir*, etc.), but in KBo. 6. 2. 3. 18 we read *mi-im-ma-an-zi*. The 2 pl. ending is written in the present *te-ni* or *te-e-ni* and in the preterit and imperative *te-en*, *ti-en*, or *tin*. On the other hand the instrumental case ending is usually written *it* (e.g. *te-eš-ḫi-it*, *ú-e-te-ni-it*, *ḫa-aš-ti-it*); but occasional spellings like *zé-e-ya-an-te-it* (KBo. 5. 1. 1. 29, 36, 3. 3) justify the belief that the pronunciation was *et* (cf. the IE abl. in *-et* [197abd]). The middle ending *ti* is nearly always so written, but there are at least two occurrences of *te*: *lu-uk-kat-te* (KUB 20. 80. 3. 1) = *lu-kat-te* (KUB 25. 21. 4. 2) = *lukate* 'day dawns'. Besides, the fact that *ti* has not changed to *zi*, as in the personal ending of the 3 sing. act. of the *mi*-conjugation, proves that the vowel was not *i* at the time of the change *ti* > *zi* [119]. No doubt *lukate* is archaic, while in other words final *te* became *ti* after the analogy of the ending *ri* [424].

On the use of the sign *ya* in the value *ye*, see [43].

40b. Hittite *e* comes from original *e* [75], *ē* [77], or any diphthong with short prior element followed by *i* [89]. I find no cogent evidence

³⁹ Delaporte gives alternative values for several of the *i*-signs, namely *eh* *iḫ*, *ge* *gi*, *pé* *pi*, *pét* *pit*, *ze* *zi*; but there is no more reason for ascribing *e* to these *i*-signs than to the others; *e-ip-zi* = *epzi* proves that *ip* may mean *ep*, and just so we must assume *ez* *iz* (*te-iz-zi* = *tezi*), *et* *it* (*te-it* = *ti-e-it* = *tel*), *ne* *ni* (*ne-e-ya-an-zi* = *ni-ya-an-zi* = *neyanzi*), *eš* *iš* (*e-eš-ḫar* = *iš-ḫar* = *eshar*). It saves confusion to write *i* consistently for all *i*-signs in our syllabic transcription; in the broad transcription we write *e* if there is any conclusive graphic or etymological evidence for that vowel.

⁴⁰ Delitsch, Ass. Gramm. § 15.

⁴¹ Sommer, AU 40 fn. 1.

for a difference in quality based either upon the origin of the sign or upon its position in the word.

There is some orthographic variation between *e* and *a*. In particular the personal endings of 1 and 2 pl. show regularly *weni*, *meni*, *wen*, *men*, *teni*, *ten*, but we have also a few instances of *wa-ni*, *ma-ni*, and *ta-ni* [385, 386]. One might be inclined to combine with this evidence *a-ša-an-zi* 'they are' beside *e-eš-zi* 'is', *a-tu-e-ni* 'we eat', *a-da-an-zi* 'they eat' beside *e-it-mi* 'I eat', etc.; the variation in the first syllable of *wa-a-tar* (passim) 'water' and *ú-wi-ta-ar* (KUB 13. 3. 3. 23), *ú-i-da-a-ar* (KBo. 3. 4. 2. 65), gen. *ú-wi-te-na-as*, abl. *ú-e-te-na-az*, inst. *ú-e-te-ni-it*, etc. A conceivable inference might be that original *e* had yielded a more open *e* than original *ē*, and that the different quality led to an occasional writing with *a*. But if so it would be strange that we always have *e-eš-zi* in the singular, always *e-eš-ḫar* or *iš-ḫar* 'blood': Gk. *ἔαρ*, etc. Furthermore similar variation between *e* from original *ē* and *a* must be recognized in *e-ip-zi* 'he takes' and *ap-pa-an-zi* 'they take', *e-ša-ri e-eš-ia-ri* 'sits' and *a-ša-an-na* 'to be inhabited', etc. On the whole it is better to ascribe variation between *e* and *a* to ablaut, obscured in many instances by analogy.

I cannot agree with Friedrich, ZA NF 5. 45 fn. 1, in concluding from the unnecessary writing of *i* for *e* in *iš-ḫar* = *eš-ḫar*, etc. that Hittite *e* was a very close sound. It would require additional evidence to establish that thesis, since the writing of *i* for *e* is after all not very much more extensive in Hittite than in Akkadian. We cannot at present claim to know the precise quality of Hittite *e*.

i

41. Besides the vowel-sign *i* there are 37 syllabic signs containing *i*. Although these signs are frequently used for *e*, the converse is not true; the use of *e*-signs to denote *i* is altogether exceptional. Written *e*, to be sure, is fairly common in nom. and acc. s. of *i*-stems; but since such spellings are almost unknown elsewhere, the written *e* probably stands for the phoneme *e* [191b, 192]. In general the use of an *e*-sign may be construed as strong evidence that the vowel is *e*, but the use of an *i*-sign cannot prove that *i* is to be read rather than *e* [40a].

In inherited words *i* comes from original *i* [82] or *ī* [83].

For the use of *i* to represent *y*, see [43].

u

42a. Hittite has two equivalent vowel signs, *u* and *ú*, and 35 syllabic signs containing *u*. This is essentially the Akkadian system and so we may provisionally assume that the Hittite and the Akkadian sounds were similar.

42b. In Akkadian *Ū* is the prevailing sign initially and *U* medially. In Hittite also *ú* is most common initially and *u* medially, while *ú* is

preferred finally, but there are a good many exceptions. In the Hittite documents there is a tendency toward a standard orthography for each word and grammatical element. Thus *humanza* 'all, whole' is spelled *ḫu-u-ma-an-za*, *ḫu-u-ma-an-da-an*, etc. hundreds of times without a single occurrence of *ú* as far as I know, while *watar* 'water' regularly shows in the oblique cases *ú-wi-te-na-aš*, *ú-i-te-na-aš*, *ú-e-te-na-aš*, etc. and from *we-* 'come' we have only such spellings as *ú-wa-mi*, *ú-iz-zi*, etc. Instances of confusion, however, are not lacking. Although the 3 sing. imperative of *hi*-conjugation *a*-stems regularly ends in *a-ú* we have *da-a-u* (KUB 12. 26. 3. 23). From *a-ša-a-u-ar* we have *a-ša-u-ni* and *a-ša-u-na-az* but also *a-ša-ú-ni* (KBo. 6. 2. 3. 49; 6. 34. 4. 14). Beside *a-ni-u-ur* (KUB 7. 29. 1. 4; 12. 58. 2. 31) there is *a-ni-ú-ur* (KUB 5. 6. 3. 30). Beside numerous spellings like *u-i-ya-mi* and *u-i-ya-nu-un* the verb *weya-* 'send' presents *ú-i-ya-an-zi* (VBoT 24. 4. 37) and *ú-e-ya-at-tin* (KUB 14. 14. 2. 36—cf. Götze, KIF 1. 176 fn. 10). In spite of many occurrences of *a-pu-u-uš* and *ku-u-uš* we read *a-pu-ú-uš* (KUB 14. 14. 1. 21) and *ku-u-ú-uš* (KUB 14. 14. 2. 31). Beside *ḫé-e-ú-uš*, *ḫé-e-ú-un* there are also *ḫé-e-u-uš* (KUB 19. 50. 4. 27), *ḫé-e-u-un* (KBo. 3. 21. 2. 25), *ḫé-e-u-wa-aš* (KUB 25. 23. 4. 47), *ḫé-e-u-e-eš* (KUB 8. 1. 3. 8). The middle forms of *au-* 'see' are written with initial *u-wa-* or *ú-wa-* indiscriminately.⁴²

42c. The tendency toward using *u* in certain words or grammatical elements and *ú* in others, combined with the fact that *u* is thought to denote *o* and *ú* to denote *u* in Elamite and Mitannian, has induced some scholars⁴³ to find the same distinction between the two signs in Hittite. The most obvious difficulty with the theory concerns the use of *u* and *ú* as equivalents of *wa*. For example, the verbal nouns in *war* are most frequently written with final *-u-wa-ar* (e.g. *pa-aš-ga-u-wa-ar*, *ka-ni-eš-šu-u-wa-ar*), but we also find such spellings as *ka-ni-ni-ya-wa-ar* (KBo. 1. 42. 2. 47), *pa-aš-ga-wa-ar* (ib. 4. 26), *ar-ku-wa-ar* (KUB 21. 27. 2. 13, etc.); *pa-a-u-ar* (KBo. 1. 35. 4), *ḫar-ni-in-ku-u-ar* (KBo. 3. 4. 1. 36); *ḫa-aš-ḫa-aš-šu-ar* (KBo. 3. 34. 2. 29); it follows from these and similar facts that *u* may stand for the initial sound of *wa*. Just so *ú* is equivalent to the first element of *wa* in the forms of *watar-* 'water' (nom. acc. *wa-a-tar*, gen. *ú-wi-te-na-aš*, *ú-i-te-na-aš*, abl. *ú-e-te-na-az*, inst. *ú-e-te-ni-it*, etc.) and of *we-* 'come' (*ú-wa-mi*, *ú-wa-an-zi* beside *ú-iz-zi*, *ú-it*,

⁴² Friedrich, ZA NF 3. 202 f.

⁴³ Weidner, Stud. 2-13; Marstrander, Car. 101-14; and Forrer, 1 BoTU 6 f. Hrozný, SH 195-9, answered Weidner, and important data have been collected by Götze, KIF 1. 204; Friedrich, IF 43. 258 fn. 5., Vert. 2. 87 f., ZA NF 3. 203.

ú-e-ir). It is easy to transcribe with *o* and *y* respectively; but it is not likely that the language had two separate phonemes so similar to each other.

The decisive proof comes from etymology. IE *u* is represented by *ú* in *i-ú-kán* (KBo. 3. 41. 2. 6) *i-ú-ga-an* (KUB 7. 8. 2. 8) = *yukan* 'yoke': Lat. *iugum*, etc.; but it is no less clearly represented by *u* in *a-aš-šu-u* (KUB 14. 1. 1. 54, 55) = *a-aš-šu* = *asu* 'good' (nom.-acc. neut. of a *u*-stem), and in *hu-u-uš-ki-ši* (KBo. 5. 13. 3. 18), *hu-u-uš-ki* (KBo. 4. 3. 2. 13; 5. 13. 2. 29, 3. 11) from *husk-* 'await' beside *hwes-* 'live': Skt. *vasati* 'dwells', *uṣur* 'they dwelt', part. *uṣitas*. The verbal prefix *u-* 'hither' is to be identified with IE *au* [286]; it is written *u* in the forms of *una-* 'drive hither' (*u-un-na-i*, etc.) but *ú* in the forms of *uta-* 'bring' (*ú-da-a-i*, etc.). The conclusion is inevitable that *u* and *ú* are equivalent signs, in spite of their secondary distribution in standard orthography.

42d. Hittite *u* comes from original *u* [84], *ū* [85], or any diphthong with short prior element and final *u* [93]. Since the original short *i*-diphthongs give Hittite *e* while original *i* remains, one might expect the short *u*-diphthongs to yield *o* and to be kept distinct from original *u*. But until we can find direct evidence for such a difference in pronunciation, we must treat Hittite *u* as a single phoneme.

For the use of *u*, *ú*, and the *u* contained in syllabic signs to write *w*, see [45a].

For the use of *u* and *ú* in the values *wa* and *wi* (*we*), see [46].

For *ku* corresponding to an IE labio-velar before a consonant, see [54a].

y

43. In the syllabary as taken over from Akkadian the only sign capable of expressing the consonant *y* was *ya*. It was necessary for Hittite to find new means of expressing *y* before *e* and *u*. Two common devices were the use of the vowel-sign *i* in consonantal value and the use of the *ya*-sign in the value *ye*. Frequently *y* after *i* or *e* and before *a*, *e*, or *u* was not written at all. All of these orthographies as well as the normal use of the *ya*-sign are illustrated in the conjugation of *tiya-* 'come'. It is a thematic verb, and so we have *a* from *o* [79] in 1 sing. *ti-ya-mi* and 1 pl. *ti-ya-u-e-ni*. The commonest orthography of the 3 sing. is *ti-ya-zi*, where we should expect the thematic vowel *e*, and the variants *ti-i-e-iz-zi*, *ti-i-e-zi*, *ti-i-iz-zi* show that we should read *tiyezi*. In the 3 pl. we find *ti-an-zi*, *ti-ya-an-zi*, which must both represent *tiyanzi*. Just so in the 3 pl. pret. *ti-e-ir* must be interpreted in the light of *ti-i-e-ir* = *tiyer*. In view of *ti-an-zi* = *tiyanzi*, *ti-e-ir* = *tiyer*,




and *ti-i-iz-zi* = *tiyezi*, there is no doubt that *ti-iz-zi*, another spelling of the 3 sing., is to be read *tiyezi*. The use of *i* = *y* before *u* occurs in *i-ú-kán* = *yukan* 'yoke'.

Occasionally the sign *e* seems to stand for *y*, but I can find no certain instances. The pronunciation of the noun *heyus* 'rain' is established by the gen. *hé-e-ya-u-wa-aš* (KUB 25. 23. 4. 52), the acc. *hé-i-ú-un* (KBo. 3. 7. 2. 25), and the denominatives *hé-e-ya-wa-ni-eš-[ki-it]* (KUB 19. 14. 1. 13) and *hé-ya-u-wa-ni* (KUB 4. 5. 14); and so in *hé-e-u-uš*, *hé-e-ú-uš*, and *hé-e-u-un* the sign *e* seems to stand for *y*; but it is equally possible to read *e* with the preceding vowel and to assume that *y* is omitted as in *ti-an-zi* = *ti-ya-an-zi*. Just so in *pi-e-an-zi* (KUB 13. 3. 2. 19) = *pi-an-zi* *pi-ya-an-zi*, it is better to understand *pi-e* as denoting *pe*; the same prefix is in other verbs customarily so written (*pi-e-da-an-zi*, *pi-e* *har-zi*) [283].

44. Hrozný⁴⁴ interpreted initial *i-ya* as *ya* (he writes *ja*) and he still adheres to the practice, although he has not published his reasons. Neither do I know why he interprets the same group as *iya* (i.e. *ija*) when it is medial or final. It can be shown [45b] that the group *ú-wa* and *u-wa* frequently have the value *wa* no matter where they stand in the word, and it would not be strange if *i-ya* were treated in the same way. Nevertheless the facts are not parallel. While we know that original *uw* became IH *um* [110] so that *uw* cannot have been inherited, there is no reason to doubt that IH possessed the sound groups *iyó*, *iye*, etc. as IE certainly did. Although the *wa*-sign is frequently written at the beginning of a word, and sometimes alternates with *u-wa*, *ú-wi*, etc., the *ya*-sign never stands at the beginning of any word except *-ya* 'and'. There is then nothing in the method of writing Hittite or in the history of the two sounds to prove that the digraphs *i-ya* and *u-wa* (or *ú-wa*) are to be interpreted similarly. We certainly have initial *y* in *i-ú-kán* = *i-u-ga-an* = *yukan* 'yoke': Lat. *iugum*, etc., and probably in *i-ú-ga-aš* 'yearling'. The etymology of *i-ya-az-zi* *i-ya-iz-zi* *i-e-iz-zi* 'makes': Gk. *ἵημι*, Lat. *iacio* 'throw' suggests the pronunciation *yezi* rather than *iyezi*, but scarcely proves it. Similarly *i-ya-at-ta-ri* 'goes' is plausibly connected with Skt. *yāti* 'goes', Lith. *jóju*, *jóti* 'ride', but these are connected with the root *ei* 'go', and so we cannot be quite certain that the Hittite verb must be *yatari* rather than *iyatari*. Just so, since the IE nominal suffix varied between *io* and *yo* and the verbal suffix between *ie/o* and *ye/o*, etymology does not help much in determining the value of

⁴⁴ SH, p. VII and passim; so Götze, KLf 1. 184, writes *ḫanna-* as the stem of 3 sing. pret. *i-ya-an-ni-eš*.

Hittite *i-ya* when it functions as a stem-final. On the whole I am inclined to accept Hrozný's interpretation of initial *i-ya* and I shall follow him in this book, but the case is not proven.

In the interior of the word *ya* does sometimes alternate with *i-ya*; e.g. *an-tu-u-ri-ya-aš* (KUB 8. 75. 1. 16) = *an-dur-ya-aš* (ib. 12) 'within'; *na-aḥ-ša-ri-ya-an-zi* (KBo. 5. 6. 3. 6) = *na-aḥ-šar-ya-an-zi* (KUB 24. 6. 2. 8) 'they fear'; *u-i-ya-nu-un* (passim) = *u-ya-nu-un* (KUB 14. 3. 2. 58) 'I sent'; *ḫu-u-i-ya-mi*, *ḫu-u-i-ya-ši*, *ḫu-u-i-ya-an-za* : *ḫu-u-ya-zi* (KUB 14. 3. 3. 51), *ḫu-u-ya-an-zi* (KUB 10. 28. 1. 6) *ḫu-ya-an-zi* (KBo. 5. 6. 2. 34; KUB 2. 3. 2. 19), *ḫu-u-ya-an-te-eš* (KUB 11. 35. 1. 21; 25. 12. 6. 5). It is evident that in these forms *ya* is equivalent to *i-ya*; it remains to determine which of the two spellings is phonetically accurate. The first two words listed above might well be pronounced either way. In the third the normal spelling throughout is *u-i-ya* and once we have *ú-e-ya-at-tin*; we must therefore read *weyanun*, assuming the common graphic substitution of *i* for *e* [40a]⁴⁵. The verb *ḫuwai*, *ḫuwiya*- 'run, flee' is probably the root *ei* 'go' with the IH prefixes *ho*-[282] and *we*-[286]; if so the probable pronunciation is *ḫuwiyanzi*, etc. We conclude, therefore, that *ya* may sometimes be read *iya*; the sign *ya* () is composed of *i* () and *a* ()⁴⁶. Similarly we must interpret *da-an-ku-ya-aš* (KUB 6. 46. 3. 48) and *da-an-ku-ya-az* (KUB 21. 1. 4. 36) from *tankwis* 'black' and *pár-ku-ya-aš* from *parkwis* 'pure' according to the corresponding forms of other *i*-stems, e.g. *tuziyas*, *supiyas*. Accordingly *pár-ku-ya-a-tar* (KUB 1. 16. 2. 67, etc.) 'purification' is to be read *parkwiyatar*.

44a. Friedrich, ZA NF 5.47 fn. 1, 51 fn. 1, reads *parkuyatar* and suggests that *asiyatar* 'love' (beside *asus* 'good') and *tasiyatar* 'strength' (beside *tasus* 'strong') may come from **asuyatar* and **tasuyatar* by a phonetic change of *uy* to *iy*. But *asiyatar* is the verbal noun from *asiya*- 'love', and may have no connection with *asus* 'good'. Nearly all the other material adduced in support of the change *uy* to *iy* consists of proper names or loan words. There remain only *tasiyatar*: *tasus* and *parkiyanu*- 'purify': *parkwis*, *parkwiyatar*. I think it likely that we must assume different stems (*tasi*-, *tasa*-, or *tasiya*-, *parki*-, *parka*-, or *parkiya*-), espe-

⁴⁵ The spelling *u-i-e-nu-un* (VBoT 1. 11) must stand for *weyenun*, which may be a dialectic (Arzawan) form [5], or which may be the correct interpretation of the other spellings also.

⁴⁶ Götze, Madd. 60 fn. 3, suggests a phonetic change of *w* to *y* under certain unspecified conditions, so that *ḫuyanzi* might come from *ḫuwanzi*: *ḫuwai*; in which case the rarer spellings with *ya* would represent the pronunciation. The suggestion seems to me most improbable.

cially since we have *parkunu-*, the normal derivative of *parkus*, beside *parkiyanu-*. At any rate there is not enough material to establish a change of *uy* to *iy*. Friedrich himself apparently does not think of it as more than a modification of the quality of *u* in the direction of *i*.

w

45a. Hittite got from Akkadian the sign *wa* but no other means of writing the sound *w*. The phonetic value of *wi* was developed in Hittite, but was never very freely used [27, fn. 30]. The vowel-signs *u* and *ú* were often used in the value of *w*, and final *u* of a consonantal sign might also stand for *w*. The following words will illustrate all of these methods: *wa-a-tar* = *watar* 'water', *na-a-wi* = *na-a-ú-i* = *nawi* 'not yet', *ú-e-eš* = *wes* 'we', *ku-e-u-en* = *kwewen* 'we struck', *ḫal-zi-ú-en* = *halzewen* 'we called', *ep-pu-en* = *epwen* 'we took', *ku-iš* = *kwis* 'who', *a-aš-ša-u-i* = *asawi* 'bono'.

45b. Unlike *y*, *w* was often written double. This might be done by prefixing *u* or *ú* to *wa* or *wi*, thus: *a-aš-ša-u-wa-aš* = *asawas* 'boni', *na-u-wi* = *nawi* 'not yet'. Some words and suffixes regularly show this doubling, but there is a good deal of variation; the verbal noun in *war* frequently has *u-wa*, but not always [161c]. Although no other consonant, except perhaps *y*, is written double at the beginning of a word, initial *wa* and *wi* are frequently strengthened by a preceding *u* or *ú*. Medial *w* after a consonant may be written two or even three times by combining the different methods of denoting the sound. In our broad transcription we write *w* single in all cases. Examples of these orthographies and of our broad transcription of them are *ú-wa-aḫ-nu-wa-ar* (KBo. 3. 5. 4. 30) = *wa-aḫ-nu-u-wa-ar* (KUB 1. 11. 1. 9) = *wahnuwar* 'a turn'; gen. s. *ú-wi-te-na-aš* = *wetenas* 'undae' (cf. *wa-a-tar* 'unda', *ú-e-te-na-az* 'ab unda'); *ku-wa-at* = *kwat* 'why' (cf. *ku-iš* 'who'); *tu-u-ig-ga-aš* = *tu-e-ig-ga-aš* = *twekas* 'parts' of one's body; *ḫar-ni-in-ku-u-ar* = *harnenkwar* 'destruction' (cf. *ḫar-ni-ik-zi* 'he destroys'); *e-šu-u-wa-ar* (KBo. 1. 42. 1. 7 f.) = *eswar* 'rò éivai' (cf. *e-eš-zi* 'is'); *kar-pu-u-wa-ar* (KUB 3. 105. 1. 5) = *karpwar* 'a mustering' (cf. *kar-ap-zi* 'he raises').⁴⁷ Probably the extraordinary frequency of the pleonastic writing of *w* indicates the dissatisfaction of the scribes with all the expedients for writing this consonant, which was lacking in some Akkadian dialects and comparatively rare in all.

45c. Pre-IH *uw* became IH *um* [110], and so Hittite did not inherit *uw* at all. It must not be supposed, however, that *u-wa*, *ú-wi*, etc.

⁴⁷ Cf. Sturtevant, AJP 50. 363-6.

are always to be interpreted as *w* + vowel. The frequent sentence opening *nu-wa* consists of the sentence connective *nu* and the enclitic particle *wa*; undoubtedly it was a phrase of two syllables. Since *hu-u-wa-a-i* 'flees' comes from IH *howēi* (i.e. *ho-we-ei*), it is undoubtedly to be pronounced as a dissyllable; we shall transliterate *huwai*. In other words analogy restored the sound group *uw* at the expense of *um*; e.g. *wahnuwar* 'a turning' beside *wahnumanzi* 'to turn'. In many words it is impossible to decide whether we should read *w* after a consonant or assume *u* with a consonantal glide. The gen. and dat. of *asus* 'good' are sometimes written *a-aš-šu-wa-aš* and *aš-šu-ú-i*; shall we write *aswas* and *aswi*, or shall we write *asuwas* and *asuwi*, assuming IH -uos and -ui? Similarly *pár-ku-e-eš-zi* 'he is acquitted' and *pár-ku-u-eš-šu-un* 'I was acquitted' may stand for *parkweszi* and *parkwesun* or for *parku(w)eszi* and *parku(w)esun*; the verb is a derivative in suffix *es* from *parkwis* 'pure' [323]. We shall prefer the writing *uwa*, etc. unless there is some reason for doing otherwise (as in the case of a suffix with initial *w*).

45d. We have seen [43] that the sign *ya* frequently has the value *ye*, and this suggests the possibility that *wa* may be interpreted as *we* in *pár-na-wa-iš-ki-it* (KUB 1. 1. 4. 63), since the duplicate (KUB 1. 8. 4. 40) reads *pár-na-ú-i-iš-ki-[it]*. I can cite no further evidence, however, except one occurrence of *ú-wa-az-zi* (KUB 4. 72. 1. 3) beside frequent *ú-iz-zi* and one instance of *ú-e-iz-zi* (KUB 17. 10. 1. 17) = *wezi* 'comes'; and, since we have from the same verb *ú-wa-mi*, *ú-wa-am-mi*, *ú-wa-ši*, *ú-wa-u-e-ni*, *ú-wa-at-te-ni*, etc., it is quite possible that the vowel *a* sometimes intruded into the third person. I formerly cited⁴⁸ the rare 1 pl. ending *wa-ni* as further evidence; but the existence of such forms as *tarnu-mani* (Hrozný, SH 157), *iš-ta-ma-aš-ta-ni* (KBo. 3. 23. 4. 15), *pa-it-ta-ni* (KBo. 3. 23. 4. 16), and *na-iš-ta-ni* (Delaporte, Gramm. p. 75) causes difficulty. I now prefer to consider *wani* and *mani* as inherited forms (for the *o*-grade, cf. Lat. *agimus*, etc.), while *tani* is probably analogical. It is safer not to assume the value *we* for the sign *wa* at all.

46. The vowel signs *u* and *ú* sometimes stand where we might expect *wa* or *wi* (*we*); e.g. *an-na-ú-li-iš* (KUB 14. 3. 2. 14) = *an-na-wa-li-iš* (KUB 14. 3. 4. 56); *a-ú-ri-iš* (KUB 14. 17. 3. 22) 'outpost', [*a*]-*ú-ri-ya* (KUB 13. 2. 1. 4), etc.: *a-ú-wa-ri-ya-aš* (KUB 13. 2. 2. 5); É *ha-li-en-tu-u-wa* (passim);⁴⁹ *i-da-la-u-aḥ-hu-un* (KUB 21. 19. 3. 6) = *i-da-(a)la-wa-aḥ-hu-un* (KBo. 5. 13. 1. 23, etc.) 'I injured'; *šu-ú-iz-zi* (KBo. 6. 2. 4. 48; 3. 4. 58) = *šu-wa-(a)iz-zi* (passim) 'gives as security'; *ú-ra-a-nu* (KUB 12. 28. 8) = *wa-ra-a-nu* (KUB 17. 12. 3. 5) 'let it burn'; *ú-ri-wa-ra-an* (KUB 17. 10. 3. 22) =

⁴⁸ Lang. 7. 12 (1931).

⁴⁹ Friedrich, ZA NF 3. 178.

wa-ri-wa-ra-an (Bo. 551. 2. 4) 'burning',⁵⁰ [*ha*]-*at-ra-a-u-ni* (KUB 14. 1. 2. 36) 'we write': *a-ri-ya-u-e-ni* (KBo. 2. 2. 2. 32) 'we inquire by divination', etc.; *hu-u-nu-ut* (KUB 21. 1. 2. 66) = *hu-(u-)i-nu-ut* = *hu-u-e-nu-ut* 'drive' (imperative); *ka-ru-ú-li-in* (KUB 13. 11. 1. 7) = *ka-ru-ú-i-li-in* (KBo. 6. 3. 3. 13; cf. *ka-ru-ú-li-iš*, etc.) 'former'; *ša-ú-di-iš-za* (KBo. 6. 2. 3. 23, 26, 27, 34, 36), *ša-a-ú-ti-eš-[za]* (KUB 13. 13. 1. 6) = *ša-ú-i-ti-iš-za*, *ša-a-ú-i-te-eš-za* 'of the same year'; *ú-wa-ak-ki-iz-zi* (KUB 14. 4. 3. 20) = *ú-e-wa-ak-ki* (KBo. 5. 2. 1. 52) 'he demands'; *ú-iḫ-zi* (KUB 11. 34. 6. 53) = *ú-e-iḫ-zi* (KBo. 4. 1. 1. 16, etc.) 'he turns'.

If these orthographies stood alone they would prove conclusively that *u* and *ú* may stand for *wa* or *wi* (*we*); but there are some superficially similar spellings that cannot be thus explained. In the first place *u-ur-ri-ir* (KBo. 3. 60. 2. 7) 'they burnt' casts doubt upon the interpretation of *ú-ra-a-nu* as *waranu* and of *ú-ri-wa-ra-an* as *wariwaran*; and *hu-nu-ut* (KUB 21.1. 2. 72) 'drive' justifies hesitation in connecting *hu-u-nu-ut* with *hu-u-i-nu-ut*—unless, to be sure, these isolated forms are mere blunders. More difficult are such orthographies as these: *ul-ki-eš-ša-ra-aḫ-ḫi-ir* (KBo. 3. 34. 2. 32) 'they made expert': *wa-al-ki-iš-ša-ra-aḫ-ḫi* (KBo. 6. 26. 4. 30 + KUB 13. 14. 2. 7) 'he makes expert'; *ša-an-ḫu-un-zi* (KBo. 4. 2. 1. 11) = *ša-an-ḫu-wa-an-zi* (KUB 9. 25. 1. 4) 'they roast'; *ša-an-ḫu-un-da* (VBoT 24. 1. 17, 2. 8) = *ša-a-an-ḫu-u-wa-an-ta* (KBo. 4. 2. 2. 29) 'roasted'; *pár-ku-uš-zi* (KUB 8. 2. 2. 8) = *pár-ku-iš-zi* = *pár-ku-e-eš-zi* 'he acquits'; A.Š.Š. *ku-ra-aš* (KUB 8. 25. 1. 9) = A.Š.Š. *ku-e-ra-aš* (passim); *e-ku-ut-te-ni* (KUB 1. 16. 3. 48; 13. 4. 2. 70) = *e-ku-wa-te-ni* (KUB 1. 16. 3. 34) 'you drink'; *ḫur-ta-aš* (KUB 22. 70. 1. 8) = *ḫu-wa-ar-ta-aš* (KUB 22. 70. 1. 86) 'he cursed'; *la-ḫu-uḫ-ḫi* (KUB 7. 1. 1. 30) 'I pour': *la-ḫu-(u-)wa-(a-)i* 'he pours' etc. On the basis of such material as this Götze and Friedrich⁵¹ have assumed a contraction of *uwa* to *u*; but that will not account for the words cited above which show a variation between *au* and *awa* or between *u* and *wa* or between *u* and *uwi* (*uwe*). In fact Friedrich⁵² has suggested a separate treatment for the variation between *u* and *wi* (*we*).

⁵⁰ Sommer, KIF 1. 346 and fn. 1.

⁵¹ Götze, Madd. 137 f.; Friedrich, ZA NF 3. 188. So Sommer, AU 134; but cf. ib. 139. Benveniste, RHA 1. 203-8, repeats the theory with additional evidence, but does not convince me.

⁵² Vert. 2. 42 fn. 2, 92, 167. Sommer, AU 23 fn. 1, remarks that some examples of this alternation point toward Arzawa. Probably he refers to proper names like URU *U-lu-ša* = URU *Wi-lu-ša*, which we have omitted as probably not Hittite.

It is quite certain that the material adduced belongs in several different categories. For instance *e-ku-ut-te-ni* 'you drink' is the regular form corresponding with 3 sing. *e-ku-uz-zi*; the rarer *e-ku-wa-te-ni* must be a contamination of this with the 3 pl. *a-ku-wa-an-zi*. 1 sing. *la-ḥu-uḥ-ḥi* goes with 3 sing. *la-a-ḥu-(u-)i* and imper. *la-aḥ-ḥu-tin*; we have a variation of conjugation parallel with that between *ar-ḥi*, *a-ri*, *a-ra-aš* 'arrive' and *a-ra-a-i*, *a-ra-a-iš* 'arise'; or, without variation in meaning, *pi-e-en-i* (KUB 25. 22. margin 3), *pi-en-ni-iš* (KBo. 3. 34. 1. 25; 3. 8. 3. 18), *pi-en-nir* (KBo. 4. 2. 4. 28): *penahi*, *penai*, etc. 'drive'. In *ḥur-ta-aš* beside *ḥu-wa-ar-ta-aš* and also in the noun *ḥur-ta-a-iš* 'curse', I see two orthographies for *hwrt-* with syllabic *r* [59]. Until the form *pár-ku-uš-zi* is found in at least one other passage it is in order to suspect that the scribe intended to write *iš* (𐎢𐎠𐎶) instead of *uš* (𐎢𐎠𐎶𐎶). I suspect an error also in the single occurrence of *ḥu-nu-ut* for *ḥu-u-nu-ut* or *ḥu-i-nu-ut*, and of *u-ur-ri-ir* for *warer*.

I believe, therefore, that *u* and *ú* occasionally stand for *wa* or *wi* (*we*). This seems particularly probable in *i-da-a-la-u-aḥ-ḥu-un*, *ḥa-at-ra-a-u-ni* = *hatraweni*, *ḥu-u-nu-ut* = *ḥuwenut*, *ša-ú-di-iš-za* = *sawetests*; cf. *ú-wa-ak-ki-iz-zi* = *ú-e-wa-ak-ki-[zi]* = *wewakezi* [304].

47. Another infrequent spelling is the use of *m* for *w*;⁵³ e.g. *ar-ru-ma-an-zi* (KBo. 3. 5. 1. 23) = *aruwanzi* 'they wash', *iš-ḥar-nu-ma-iz-zi* (KBo. 5. 1. 1. 26) 'he makes bloody': *esharnuwanzi* 'they make bloody', *i-da-la-mu-uš* (KUB 7. 53. 3. 17, etc.) acc. pl. of *idalus* 'bad', *ki-e-la-mu-uš* (HT 1. 1. 17 = KUB 9. 31. 1. 24) = *ki-e-la-u-wa-aš* (HT 1. 1. 19), *pár-ga-mu-uš* (KUB 12. 63. 1. 30) = *pár-ga-u-uš* (ib. 25), *wa-aḥ-nu-ma-a[n-za]* (KUB 1. 11. 4. 24) = *wahnuwanz* 'turning'.

Diphthongs

48. The IH short diphthongs became monophthongs in Hittite [89-93], but *āi*, *ēi*, *ōi* appear as *ai* [94] and *āu*, *ēu*, *ōu* as *au* [95]. Hittite *ai* and *au* may be written with any mechanism for writing *a* at the end of a syllable combined with any mechanism for writing *i* or *u* at the beginning of a syllable; e.g. *na-it-ti* = *na-a-it-ti* = *na-i-it-ti* = *naiti* 'you turn', *na-a-i* = *nai* 'he turns', *na-iš* = *na-a-iš* = *na-i-iš* = *nais* 'he turned', *me-ma-i* = *memai* 'he says', *a-ra-a-iš* = *a-ra-a-eš* = *arais* 'he arose', *a-uš-zi* = *auszi* 'he sees', *a-uš-ta a-ú-uš-ta* = *arust* 'he saw',

⁵³ Sommer, BoSt. 10. 18, 74; Götze, Madd. 120; Sturtevant, AJP 50. 362 f. Götze is wrong in reading *ne-ku-ma-an-za* as *nekuwanza*.

ḫar-na-a-ú = *harnau* 'in the birthchair'. This orthography does not of itself require diphthongal pronunciation; in fact such a spelling as *na-i-iš* might rather suggest dissyllabic *nais*. The proof that in some words *ai* and *au* are monosyllabic is that they correspond to diphthongs in the related languages; e.g. *na-a-iš* : Skt. *naiṣ*, *ḫar-na-a-ú* : Skt. *-au* [195c]. There remain many words in which Hittite *ai*, *ae*, and *au* are of secondary origin, and we do not know whether these are diphthongs or not; e.g. *hatraezi* or *hatraizi* 'he writes' < **hatrayezi* [310]; *me-ig-ga-e-eš*, pl. of *mekis* 'great', < **mekayes* [198]; *da-a-ú*, imper. of *ta* 'take', formed on the analogy of *da-a-i* 'takes' [415].

Pleonastic Vowels

49a. In Akkadian vowels are frequently written double (*Ū.UL*, *BE.E.EL*, *TI.A.AM.TU*, *I.IN.NEN.NA.A*), and in many instances this orthography denotes vowel length (*BE.E.EL* = *BĒL* 'lord'). But before a vowel plus a consonant that ends a syllable an extra vowel occasionally represents the glottal stop (*IP.TI.A.AM* = *IPṬI'AM*), and frequently a short vowel, particularly if initial, is written double even if not preceded by the glottal stop (*Ū.UL* = *UL*).⁵⁴ Delitzsch says that etymology alone can determine the quantity of an initial vowel, and etymology must not infrequently be invoked for other vowels too. In the Akkadian texts from Boghazköi the double writing of short vowels is far more frequent than elsewhere.

49b. This situation warns us that we should not hastily assume long vowels in Hittite on the basis of double writing.⁵⁵ It should be easy to determine whether inherited long vowels and vowels resulting from contraction tend to be written double more frequently than inherited short vowels. The following lists contain only words and grammatical elements whose etymology is fairly certain. For discussion of the several etymologies, see the word index.

⁵⁴ Delitzsch, *Ass. Gramm.* §10; Ungnad, *Materialien zur Altakkadischen Sprache* = MVAG 20. 2. 4; Labat, *L'Akkadien de Boghaz-köi* 10 f.

⁵⁵ Cf. Götze, *Madd.* 80: "Ich kann hier nur davor warnen, aus jeder Pleneschreibung auf Vokallänge zu schliessen. Wenn man das durchführt ..., kommt man zu einer ganz unmöglichen Häufung von Längen. Wir haben damit zu rechnen, dass ein grosser Teil von Pleneschreibungen anderen Zwecken dient als der Markierung von Vokallängen, vielleicht manchmal auch nur reine Schreibermarotte ist. Friedrich erinnert mich an die auffällige Häufung von Pleneschreibungen in der Orthographie des Mitanni-Briefes."

na-ak-ki-i (neut. of *i-stem*) 'heavy'.

dat. ending of cons. stems, e.g. *ḫa-an-ti-i* (nom. *hanz*), *ku-ru-ri-i* (nom. *kurur*), *ku-uš-ša-ni-i* (nom. *kusan*), *lam-ni-i* (nom. *lamar*), *ud-da-ni-i* (nom. *utar*).

Although our list of words in which a doubled vowel is not justified by inherited quantity is considerably longer than the list of words which seem to mark an inherited or contracted long vowel by double writing, we must not without more ado decide that there is no correlation between inherited quantity and double writing. The parent speech seems to have had more short vowels than long, and at any rate among Hittite words of known etymology inherited short vowels predominate in a ratio of more than 2:1, and the ratio of original short vowels to long vowels among the etymologically clear syllables written with double vowel is considerably less than that. Inherited quantity was perhaps a factor in determining the double writing; but the percentage of error is so high that we cannot expect to get any information about inherited quantity from this source.

The question inevitably arises whether a better case could be made out for the double writing as a mark of a quantitative system developed in Hittite itself. I have included in the list several doubled vowels that may have been long as the result of contraction; but this assumption will not carry us far, and I do not at present see how to piece it out with similar devices.

It is of course conceivable that there was a secondary distribution of vowel quantity due to a stress accent. But if so all unaccented syllables should presumably have short vowels, and on such a theory it would be difficult to account for such spellings as these: *ḫu-u-la-li* = *ḫu-la-a-li*; *i-da-la-a-u-wa-an-ni* = *i-da-a-la-wa-an-ni*; *i-da-a-la-u-i* = *i-da-a-la-a-u-i*; *lu-ú-lu* = *lu-lu-ú*; *da-a-ma-uš* = *da-ma-a-uš*; *ḫa-an-da-a-an-ta-tar* = *ḫa-an-da-an-da-a-tar*. Peculiarly troublesome would be such a word as *i-da-a-la-a-u-e-eš-te-e-ni* (KBo. 5. 4. 2. 21). Furthermore an accent strong enough to determine vowel quantity might be expected to cause the loss of many unaccented vowels, and I can find no traces of such a tendency. Finally if quantities were redistributed by the accent we have no explanation of the limited correlation that we have found between inherited length and double writing.

It is possible that Hittite retained the inherited distinction between long and short vowels, and that there was some tendency to represent long vowels by double writing; but vowel quantity was not the sole criterion, and we are not now in a position to tell in a given case whether

double writing indicates vowel length unless etymology furnishes independent evidence. Under these circumstances it is the part of caution to pay no attention to Hittite quantities; in this book I shall not use the macron in transcribing Hittite words.

50. Of other reasons for writing vowels double, one of the most important seems to have been the ambiguity of most of the signs containing *i*. In spite of our transcription *pi*, this sign was often used in the value *pe*, and similarly the sign *it* was the only available syllabic sign for writing *et*. Since the only closed sign that existed for the value *pet* was the one which we transliterate *pit*, the only possible way to indicate clearly the quality of the vowel in the first syllable of *petan* 'place' was to write *pi-e-*, and that is in fact the usual orthography of the word. Other doublings of original short vowels that can be explained in this way are: *e-it* 'eat', *gi-e-nu* 'knee', *ú-e-ik-zi* 'asks', and third singular of thematic verbs in *-e-iz-zi*, *-e-it*, and *-e-it-ta*. Quite likely, then, the double writing of inherited long vowels in *e-ip-zi* 'takes', *ka-ri-e-pi-ir* 'they devoured', and the third preterite in *-e-ir* is due to the quality rather than to the quantity of the vowel. Apparently the occasional need to write the sign *e* to show vowel quality led to writing it needlessly before or after an open sign containing an unequivocal *e*; e.g. *e-eš-ta-ri* 'sits', *e-eš-zi* 'is', *e-eš-har* 'blood', *ne-e-u-it* 'new', *te-e-pu* 'small', and the personal endings *-me-e-ni*, *-u-e-en*, *-te-e-ni*. There is then reason to doubt the quantitative significance of *e* in *te-e-mi* 'I say', *ú-i-e-eš*, *ú-e-eš* 'we', *ú-e-eš-ta-ra-aš* 'shepherd', *ku-i-e-eš* 'who, which' (pl.).

Confirmation of our impression that a pleonastic *e* is used to denote vowel quality rather than vowel quantity is presented by the fact that this vowel is inserted more often than is to be expected. I find that of all the open syllabic signs in several bits of text chosen at random 59 percent begin or end with *a*, 26 percent with *e* or *i* (in a majority of the instances it is impossible to distinguish between these two), and 15 percent with *u*, while in a large number of nouns, adjectives, pronouns, and verbs tabulated for another purpose, out of 6784 repeated vowels 45 percent are *a*, 30 percent *e*, 9 percent *i*, and 16 percent *u*.

51. Another factor of some importance is the length of the word. Except for enclitics and proclitics, the sentence connectives *nu* and *ta, ne* 'et ea', and *se* 'ea' (KBo. 3. 60. 3. 4), no words are written with a single sign. Hence no inference regarding quantity can be drawn from the following: *e-eš* 'be', *e-ip* 'take', *e-it* 'eat', *i-it* 'go', *ki-e* 'haec', *ki-i* 'hoc', *li-e* 'ne', *ma-a* 'prosper', *pa-a* 'go', *da-a* 'take', *ú-uk* 'I'.⁵⁶ Verb-forms

⁵⁶ I do not mean to assert that the brevity of these words was the sole reason

ending in *-ai* almost always have *a* written double if no sign precedes (*la-a-i*, *ma-a-i*, *na-a-i*, *pa-a-i*, *ša-a-i*, *da-a-i* 'takes', *da-a-i* 'places, place', *wa-a-i*, *za-a-i*). If one sign precedes either orthography is freely used (*a-ra-a-i* 'rises', *ar-ra-i* 'washes'). If two signs precede the vowel is usually omitted (*hu-wa-a-i* 'flees' but *hu-u-wa-i*, rarely *hu-u-wa-a-i*). If more than two signs precede the vowel is nearly always omitted (*hal-zi-iš-ša-i*, *kar-ma-la-aš-ša-i*, *la-aḥ-hu-wa-i*, *ta-a-iš-ta-i*; but *la-hu-u-wa-a-i*).

As in some of the forms just cited and those in [49b] there is a tendency not to double more than one vowel in a word. Other examples are *da-a-ir* = *da-i-ir*, *da-a-i*: *pt-e-da-i*, *da-ma-a-iš* = *da-ma-i-iš*, *ta-ma-a-in* = *ta-ma-i-in*.

52. The only vowel sign to be written twice in succession is *a*, as in *a-a-an-za* 'hot', *a-a-an-ni-in-ni-ya-mi-iš* 'cousin', *a-a-ra* 'customary' (?), *a-a-ri-ya* 'give an oracle', *a-a-ru-na-aš* 'sea',⁵⁷ *la-a-ma-a-a-mi-it* 'my name'. This orthography is rare even with *a* and is confined to the position before *r* or a nasal. If it indicates anything of a phonetic or historic nature I have not discovered what that is. In Akkadian the sign group *a-a* has been thought to stand for *aya*, but that is an improbable value in Hittite, since *y* was lost between like vowels with subsequent contraction.

Stops

53a. Akkadian had eight stop-sounds (*K*, *Q*, *G*, *T*, *Ṭ*, *D*, *P*, *B*), all distinguishable by some at least of the cuneiform signs. Hittite took over much of the mechanism for writing these sounds, including at least one unambiguous sign for each of the eight sounds except *Ṭ*. The Akkadian texts from Boghazköi retain several signs that either do not occur at all or are extremely rare in Hittite texts; notably *GU*, *BA*, and the value *BE* of sign No. 86 [27]. This difference from their practice in writing their own language can have been induced only by an attempt on the part of the scribes to follow the traditional orthography of Akkadian words. Nevertheless, as Weidner⁵⁸ has shown, the Hittite scribes so

for writing the vowel double. Some of them certainly had original long vowels; and in some cases the double writing may have helped to distinguish between a Hittite word and an ideogram.

⁵⁷ Compare the strange form *ku-u-ú-uš* (KUB 14. 14. 2. 31) = *ku-u-uš* (passim) 'these'. *i-i-an-ni-iš* (KBo. 5. 6. 2. 27) is an error for *i-ya-*; cf. [44 end.].

⁵⁸ Stud. 13-25. Hrozný's reply, SH 199 f., does not touch this part of Weidner's argument. See now Labat, *L'Akkadien de Boghaz-köi* 22-31.

thoroughly confused Akkadian *K*, *Q*, and *G*, *T* and *D*, *P* and *B* that they must have heard only three sounds instead of the eight which their teachers employed or the seven for which their system of writing was equipped. The conclusion is inevitable that the Akkadian distinction between *K*, *Q*, and *G*, *T* and *D*, *P* and *B* did not exist in Hittite.

53b. This conclusion is confirmed by Hittite orthography itself. The only sign in our list [27] for an emphatic consonant is *qa*, and this is evidently used as a mere variant for *ka*: *ku-(e)el-qa* = *ku-(e)el-ka*; *ku-e-iz-qa* = *ku-e-iz-ka*; *me-ig-qa-e-eš* : *me-ik-ki*. The only signs in our list [27] capable of distinguishing between *k* and *g* are *ka ga*, *ki gi*, *kal gal*, and *kur gur*, of which *gi*, *gal*, and *gur* are rare. Even the remaining pair is used inconsistently: *ga-i-na-aš*, etc., but *ka-i-na-aš* (KBo. 3. 34. 1. 17); *ga-ni-eš-zi*, etc., but *ka-ni-iš-zi* (KBo. 6. 3. 3. 41, 44); *ḫar-ga-an-za*, *ḫar-ga-nu-*, etc., but *ḫar-ki-e-ir* (KUB 1. 16. 3. 45). The sign *gi* is regular in a few words, but beside usual *gi-e-nu* etc. there is dat. pl. *ki-nu-wa-aš* (KUB 10. 52. 6. 7); and beside *gi-im-ma-an-za* etc. there is acc. sing. *ki-im-ma-an-tin* (KUB 4. 4. 1. 3). There is not a common word which, with its derivatives, is consistently spelled with *g*, although there are several in which *k* alone is used (*kas* 'this', *ke* 'lie', *kwen-* 'strike', etc.).

53c. The only Hittite signs [27] with which one could distinguish between *t* and *d* are *ta da*, *te dé*, *ti di*, *tu du*, *tam dam*, *tir dir*, of which *dé*, *di*, *tam*, and *dir* are rare. Here again it would scarcely be possible to find a common word consistently written with *d*. Hrozný, SH 199, cites the verb *da-a-i* 'he takes', but we have part. *ta-a-an* (KBo. 3. 4. 3. 91) and, from the compounds, *ú-e-te-it*, *ú-it-ta-at-te-en*, *ú-wa-te-nu-un*, *ú-wa-te-u-en*, *ú-wa-te-ir*, *ú-tir*, *pi-ta-at-te-ni*, *pi-e-ta-aš*, *pi-e-te-ir*, etc. Beside *a-da-an-zi* 'they eat' there is *a-ta-a-an-zi* (KBo. 3. 60. 2. 5); from the stem *ḫa-an-da-i-* we have 3 sing. pret. midd. *ḫa-an-ta-it-ta-at* (KUB 14. 11. 2. 46; 14. 14. 2. 3, 5); from *pi-e-da-an* 'place' there is dat. *pi-e-ti*, *pi-e-te*, *pi-ti*.

53d. The only Hittite signs for *b* are *ba* and *be*. The former is confined to a single Hittite word, *ta-ba-ar-na-aš*, a title of the Hittite kings,⁵⁹ and even the related words *tapar-* 'rule', *tapariyas* 'ruler', *tapariyalas* 'prince', etc. are always written with the sign *pa*. The value *be* for sign No. 86 is also rare, being chiefly confined to the particle of identity and to occasional use in the forms of *peta-* 'bring'. To all intents, therefore, Hittite has dispensed with the means of writing *b*.

⁵⁹ Even this word is very likely borrowed from Hattic or from Luwian. *ampasis* (*am-ba-aš-ši-iš*) 'park' is certainly borrowed from Akkadian *AMBASSU*. Just possibly *parihas* (*ba-ri-ḫa-aš*—KUB 17. 1. 2. 10) is genuine Hittite.

53e. It is quite certain, then, that the Akkadian distinction between voiceless and voiced stops did not exist in Hittite. The marked preference for *k*, *t*, and *p* indicates that the Hittite sound may have been nearer Akkadian *K*, *T*, and *P*; but, on the other hand, in the Cappadocian tablets the tendency is for Akkadian *K*, *T*, and *P* to be written *G*, *D*, and *B* respectively, and the confusion of the voiced and voiceless sounds is probably due to the same linguistic substratum in Kanes as in Hatusas. Weidner, *Stud.* 25, suggested that Hittite had only the voiceless lenes, and I am inclined to think that he was right, at least in regarding the Hittite stops as voiceless. In this book I write only *k*, *t*, and *p* in broad transliteration. For the quantitative distinction between the IH voiced and voiceless stops, see [66].

Velars with Following *w/u*

54a. Hittite usually presents *kw* where IE gives evidence for a labio-velar before a vowel. The combination is written in the same ways as *w* after any other consonant, and there is no orthographic indication of any peculiarity in the pronunciation.

When a consonant follows, the reading is usually *ku* (occasionally *kur* or *gur*, and probably also *kum* or *gul*, although I have no record of the last two). Examples are: *e-ku-zi* 'he drinks' : Lat. *aqua*; *ku-ra-an-zi* 'they cut off', *ku-kur-ša-an-te-eš* 'mutilated', *gur-ta-an* 'citadel' : Lat. *curtus* 'mutilated'; *ku-iš-ki* 'quisquam' : Lat. *quis*, *alicubi*; *ku-ut-tar* 'neck' : Lat. *guttur*; *ne-ku-ma-an-za* : Gk. *γυμνός* 'naked'; *ne-ku-uz* 'bed-time' : Lat. *noctis*; *ku-na-an-zi* : Skt. *ghnanti* 'they strike'. One is inclined to follow the usual assumption that labio-velars originally stood before consonants as well as before vowels and to pronounce the last word cited in two syllables [kwnantsi]. Four considerations have induced me rather to assume that in Hittite and in IH *w/u* after a velar was like *w/u* after any other consonant, and that the labio-velars as such are an IE development: (1) Since in Akkadian the signs *ku*, *kur*, etc. always stand for independent syllables with a full vowel *u*, we should expect the Hittite scribes to find some difficulty in using them for *kw*, *kwr*, etc. Undoubtedly *ku* does frequently stand for *kw* before a vowel, but the unsatisfactory nature of the orthography appears in frequent variants such as *ḥar-ni-in-ku-u-ar* = *harnenkwar*, *e-šu-u-wa-ar* = *eswar*, etc. [45b]. We find, however, no such spellings as *e-ik-wa-zi* = *ekwzi*, or *ku-wa-na-an-zi* = *kwnanzi*. (2) No IE language preserves labio-velars before consonants, and there is thus no solid basis for the usual assumption that the articulation once existed in our linguistic

stock. (3) The occasional correspondence of Hittite *ku* + consonant with an IE syllable containing *u* (see examples above) is a strong support of Hirt's⁶⁰ theory that the original anteconsonantal form of the labio-velars was *ku*, *gu*, etc. (4) Hittite *nekumanz* 'naked', with suffix IH *ment* for *went* after *u*, must come from IH *negu-mnt-* < **negu-wnt-*; **negw-wnt-* would surely yield **negwnt* rather than **negw-mnt-*. To be sure we actually have in the 1 pl. of *ekuzi* 'drinks' the forms *akweni* (*a-ku-e-ni*) and *ekwen* (*e-ku-e-en*), which by parity of reasoning imply *kw* + *we*. These forms, however, betray their analogical origin in their differing vocalism; 3 pl. *akwanzi* induced **akwaweni*, and 3 pl. pret. *ekwer* induced **ekwewen*, and then both first plurals suffered haplology.

54b. It must be admitted, however, that labio-velars would in some cases fit better into the morphological system than combinations of two phonemes (*kw/u*). The pair *ekuzi*, *akwanzi* clearly corresponds with the pair *epzi*, *apanzi* both in Hittite itself and in IH [302], but if we assume three syllables in *ekuzi* the parallelism is obscured, to say the least. The assumption of syllabic *u* before a consonant in *lahw/u-* 'pour' leads to a similar difficulty; for 1 s. *spanthi* and *lahuhi* must be corresponding forms [340, 459]. If *ku* before a consonant is a labio-velar, so is *hu* before a consonant.

Nasals

55. The Hittite syllabary [27] has 16 signs that include *n* and 23 that include *m*. The signs are used about as in Akkadian, and so the sounds were probably similar in the two languages. They correspond etymologically to the IE nasals, *m* appearing in general for IE *m* [136] and *n* for IE *n* [129], except that final *m* appears as *n* [137].

There is nothing in the cuneiform writing to indicate a different value for *n* when it stands before *k*; but we may assume that it was a velar nasal, just as we assume a velar nasal for IE and IH.

56. There are no cuneiform signs for syllabic nasals, and *an* from IH syllabic *n* may be read in the same way as *an* of any other origin. In *anzas* 'we' (*an-za-a-aš*, *an-zi-el*, *an-zi-ta-az*, *an-zi-da-az*) *an* represents a grade of the stem seen in Lat. *nōs*, Skt. *nas*, and it must obviously come from IH *ns* rather than *nws*; IH, then, had a syllabic nasal, but it may have become Hittite *an*. The fact that Hittite had a syllabic *r* [59] does not prove the existence of syllabic *n*; cf. Skt. *r* beside *a* < *ṇ*.

⁶⁰ BB 24. 218-91; Idg. Gr. 1. 231 f. Reichelt's argument (IF 40. 57-61) on this point is excellent, although his theory of the origin of the labio-velars will not hold.

57. Before consonants *n* is frequently not written.⁶¹ Typical examples are the following:

Before *t* and *z*: *alwanzatar* (*al-wa-za-tar*), *alwanzenas* (*al-wa-zé-na-aš*), *alwanzenaz* (*al-wa-zé-na-az*), *alwanzenus* (*al-wa-zé-nu-uš*), *antas* (*a-a-da-aš*), *asanz* (*a-aš-ša-za*), *asanwanzi* (*aš-ša-nu-wa-zi*), *halukatalanten* (*ha-lu-ga-tal-la-at-tin*), *humantas* (*hu-u-ma-da-aš*, *hu-u-ma-ta-aš*), *humantaz* (*hu-u-ma-da-az*, *hu-u-ma-ta-az*), *karpanzi* (*kar-pa-zi*), *kitpantalaz* (*ki-it-pa-da-la-az*), *malanzi* (*ma-al-la-zi*), *menahanta* (*me-na-aḫ-ḫa-da*), *neyanz* (*ne-e-a-za*), *petanzi* (*pí-e-da-zi*), *spantaz* (*iš-pa-ta-za*), *spantuzi* (*iš-pa-tu-zi*), *spantuzelas* (*iš-pa-tu-uz-zi-e-la-aš*), *stantaet* (*iš-ta-ta-a-it*), *sunanzi* (*šu-un-na-zi*), *tarsanzipe* (*tar-ša-zi-pí*), *tiyanzi* (*ti-ya-zi*), *zeyantaz* (*zé-e-ya-ta-za*).

Before *k*: *harnenkun* (*ḫar-ni-ku-un*), *henkzi* (*ḫi-ik-zi*), *lenkzi* (*li-ik-zi*), *lenkt* (*li-ik-ta*), *maninkwan* (*ma-ni-ku-u-an*), *maninkwantahi* (*ma-ni-ku-an-da-aḫ-ḫi*), *nenk* (*ni-ik*), *nenkten* (*ni-ik-te-en*), *nenenkzi* (*ni-ni-ik-zi*), *nenenkt* (*ni-ni-ik-ta*), *nenenk* (*ni-ni-ik*), *sarnenkesmi* (*šar-ni-ki-eš-mi*), *sarnenkzi* (*šar-ni-ik-zi*), *sarnenkt* (*šar-ni-ik-ta*) *sarnenkzel* (*šar-ni-ik-zi-el*), *zankilatar* (*za-ki-la-tar*).

Before *h*: *sanḫ* (*ša-a-aḫ*), *sanhan* (*ša-ḫa-a-an*), *sanheskezi* (*ša-ḫi-iš-ki-iz-zi*), *sanht* (*ša-aḫ-ta*), *sanhtu* (*ša-aḫ-du*), *sanhun* (*ša-aḫ-ḫu-un*).

Before initial *s* of an enclitic or adverb: *atan-san* (*ad-da-aš-ša-an*), *harnaun sara* (*ḫar-na-a-ú ša-ra-a*), *human-san* (*hu-u-ma-aš-ša-an*), *stamanansan* (*iš-ta-ma-na-aš-ša-an*), *peran-set* (*pí-ra-aš-ši-it*), *EN-in-sen* (*EN-iš-ši-in*). But cf. [71].

Some of these omissions are due to the impossibility of writing groups of more than two consonants, but it is significant that *n* rather than another of the group tends to be omitted. It is also significant that the omission of *n* is relatively frequent in certain texts that betray a popular character. It is scarcely a question of complete loss of *n*, but rather the sound was somehow reduced before consonants, particularly in vulgar speech.

Liquids

58. The syllabary [27] has 23 signs of which *r* is an element and 19 containing *l*. The use of the signs is about as in Akkadian, and the sounds correspond in general to IE *r* and *l*. In Hittite *r* is never initial; but the apparent absence of words with IE initial *r* prevents an inter-

⁶¹ Friedrich, Vert. 1. 33 f., ZA NF 5. 39, 42; Götze, Madd. 110-12, NBr. 5 f., 14 fn. 2; Sommer, Kf 1. 349.

pretation of that fact. There is no evidence upon which to base a precise description of the sounds.

59. IH syllabic liquids generally appear in Hittite as *ar* or *al*, but variations in orthography show that syllabic *r* at least was retained; *ḫa-aḫ-ḫar-aš-ki-it* (KUB 14. 1. 1. 72) 'he corrupted' and *ḫa-aḫ-ri-eš-ki-iz-zi* (KUB 24. 7. 4. 29) can be reconciled only as representing *hahrsk-*;⁶² *ḫu-wa-ar-ta-aš* (KUB 22. 70. 1. 86) = *ḫur-ta-aš* (ib. 8)⁶³ 'he cursed' implies *hwrtaš*; *pa-ap-ri-iš-zi* (KUB 13. 3. 2. 17), *pa-ap-ra-aš-zi* (ib. 3. 31), and *pa-ap-pár-aš-zi* (HT 5. 13) 'he is found guilty' must stand for *paprzi* [31]. Since *ar* frequently represents Hittite *ar* < IH *ar*, it is often difficult to decide whether the pronunciation was *ar* or syllabic *r*. I shall indicate the latter in broad transliteration only in case there is specific evidence for it.

8

60. Of the four Akkadian sibilants, *S*, *š*, *š*, *Z*, Hittite employs the signs for the last two only, of which *š* represents the sound that developed out of IE *s* [142]. We have in our syllabary [27] 22 signs of which one element is *š*.

We may be sure that the Hittites would not have chosen Akkadian *š* instead of *S* if the latter had resembled their sibilant more closely than the former;⁶⁴ either Akkadian *š* was closer to the Hittite sibilant or both *š* and *S* were equally close. There is evidence that in classical Assyrian and indeed in Western Akkadian generally *š* had become *S*, although the two were generally kept distinct in traditional orthography.⁶⁵ There is then a probability that the Hittites learned cuneiform writing from speakers of Akkadian who pronounced both *š* and *S* as [s]. The transliteration of Hittite names with Egyptian *s* instead of *š* (*Mrsr* = *¹Mur-ši-li-iš*, *Htsr* = *¹Ha-at-tu-ši-li-iš*) seems to settle the matter.

Perhaps the strongest evidence in favor of pronouncing the Hittite sibilant as [s] is the consistent writing of Hittite names in Akkadian documents with *š* rather than with *S*; and yet even this may be only a result of the Hittite orthography itself. If the southern Akkadians learned the names of Mursilis, Supilulyumas, and the rest through diplomatic correspondence, they would naturally retain whatever

⁶² Götze, Madd. 129.

⁶³ Both spellings are frequent in this stem.

⁶⁴ Meillet, BSL 32, Comptes Rendus 58 f.

⁶⁵ Delitzsch, Ass. Gramm. §46; Marstrander, Car. 158; Ungnad, ZA NF 1. 134 fn. 2; Labat, L'Akkadien de Boghaz-köi 36; Friedrich, Hethitisch 23 f.; Speiser, Jewish Quarterly Review 23. 245 fn. 79. Götze, Madd. 126, interprets Hittite *š* as *s*.

spellings appeared in the letters (*Mur-ši-li, Šu-up-pt-lu-li-u-ma*). The two sibilants are generally kept distinct in Akkadian texts from Bo-ghazkōi, but that may be due entirely to tradition.⁶⁶

In this book, therefore, I write *s* in broad transliteration. In syllabic transliteration, however, it is necessary to write *ša, aš*, etc. in order to conform to the practice of nearly all Assyriologists. Any other system would lead to confusion.

z

61. Hittite *z* is represented by eight signs, all of which may in Akkadian texts represent Akkadian *Z*; but, while Akkadian *Z* is a voiced sibilant, Hittite *z* represents *ts*.⁶⁷ The evidence is furnished by Hittite morphology. The masculine nouns and adjectives with dental stem form their nom. in *z* [191d]; e.g. *kar-tim-mi-(ya-)az* = *kar-tim-mi-ya-za* : acc. *kar-di-mi-ya-at-ta-an*, *ḫu-u-ma-an-za* : acc. *ḫu-u-ma-an-ta-an*. The iterative-durative suffix *ske/a* [333–338] unites with a final dental of a verb-stem to form *zke/a*; e.g. *az-zi-ki-iz-zi* from *et-, at-* ‘eat’; *ši-pa-an-za-ki-iz-zi* from *spant-* ‘pour a libation’; *zi-ik-ki-iz-zi* from *tai-* ‘place’. The intensive suffix *sa* [358] combines with final *t* of a verb-stem to form *za* in *ez-za-a-i* from *et-* ‘eat’ and *ú-iz-za-i* from *weta-* ‘bring’. The ablative ending *z* [196] is zero grade of the ablative suffix *-tos* (Skt. *samudratás* ‘from the sea’, Lat. *funditus* ‘from the bottom’).

This surprising use of the *z*-signs to write *ts* may be in part a result of the occasional use in early Akkadian and in the Akkadian documents written by Hittite scribes of the sign *ZU* to write the possessive suffix *ŠU* after a dental. In this position *Š* became *S* in all Akkadian dialects, but in early times *ZU* was commonly written for *SU*, and the practice was retained by the Hittite scribes, who sometimes omitted the preceding dental. Hence we find *KA.AT.ZU* and *QA.AZ.ZU* for *QĀT-SU* ‘his hand’, *ME.EL.KI.ZU* for *MELQĪT-SU* ‘its contents’, etc. The chief source of the use of *z* for *ts* was undoubtedly the regular use of many of the *Z*-signs to write *Š*.⁶⁸ I need not enter the controversy as to whether Akkadian *Š* was an affricate [ts] or [tʃ], or an *s* pronounced with the oral muscles tense.⁶⁹ Even if the latter alternative is correct, all seem

⁶⁶ Weidner, Stud. 28, lists several instances of confusion between *š* and *s*.

⁶⁷ Weidner, Stud. 28–30; Sommer, BoSt. 7. 18 fn. 2; Friedrich, Vert. 1. 32; Götze, Madd. 43, Kf 1. 232. Cf. Hrozný, SH 201; Marstrand, Car. 159 f.

⁶⁸ Pedersen, Le Groupement des Dialectes Indo-Européens, 37 f.

⁶⁹ P. Haupt, Beiträge zur Assyriologie und Semitischen Sprachwissenschaft 1. 261 f.; G. Hüsing, Die Iranischen Eigennamen in den Achämeniden-Inschriften, OLZ 10. 467–70; W. M. Müller, OLZ 10. 358–60.

to be agreed that non-Semites were likely to substitute [ts] or [tʃ] for it (e.g. OP *Nabukudračara* for *NABŪ-KUDURRI-UŠUR*).

h

62. Hittite uses 12 signs [27] to represent *h*, all of them similarly employed to write Akkadian *Ḫ*. Since Akkadian *Ḫ* was a spirant [χ], that is the probable value of the Hittite sound. Weidner, Stud. 25-7, held that Hittite *h* was a mere aspiration, since he thought that it was frequently omitted in writing; but his evidence is based upon incorrect identification and analysis.⁷⁰ On the contrary, Hittite *h* is as stable as any sound in the language.⁷¹ To be sure we have *esar* (*e-eš-šar*), gen. *esnas* (*e-eš-na-aš*) beside *eshar* (*e-eš-ḫar*, *iš-ḫar*) 'blood', and it is difficult to explain the loss by phonetic law [145]. Otherwise the writing is remarkably consistent.⁷² The existence of a causative suffix *h* (e.g. *parhzi* 'drives' beside *parszi* 'flees') [348] shows the functional importance of the sound. In fact a few scraps of evidence suggest that Hittite *h* may have been an aspirate [kh]. The god-name *Katahas* is once written *Ḫa-tag-ga-aš* (KBo 4. 10. 2. 2) and once *Ḫa-taḫ-ḫa-aš* (KUB 6. 45. 2. 60). The unique *Ḫ ki-lam-ni* (KUB 11. 23. 5. 18) may belong with the frequent *Ḫ hilamar*.⁷³ Several geographic names containing *h* have been identified by various scholars with later names containing *k*, *g*, or *kh*; most plausible, perhaps, is the identification of *Ahiyawa* with the stem of Gk. *Ἀχαιοί*.⁷⁴ So far, however, there is no word certainly of Hittite origin that shows any affinity between *h* and *k*. We must tentatively assume the Akkadian value [χ]. Nevertheless I write *h* rather than *ḫ* in broad transliteration; it would be foolish to print a diacritic that seems to imply more definite knowledge than we really possess. I transliterate the syllabic signs in the conventional way.

⁷⁰ Hrozný, SH 200 f.

⁷¹ Sommer, BoSt. 7. 45 f.; Friedrich, KfF 1. 92 fn. 1.

⁷² The isolated *i-da-la-wa-at-ti* (KBo. 5. 13. 4. 5) is a blunder; the duplicate texts read *i-da-la-wa-aḫ-ti*, and on the same tablet *i-da-la-wa-aḫ-ti* occurs earlier in the line. Friedrich, Vert. 1. 175, comments on the form: "War das *ḫ* so schwach artikuliert, dass es in der Schreibung gelegentlich vernachlässigt werden könnte?" An affirmative answer is impossible until several parallel examples are found.

⁷³ Friedrich, KfF 1. 93 fn.

⁷⁴ Götze, KfH 26 fn. 5, Madd. 53-5; Forrer MDOG 63. 1-22, OLZ 27. 113-18, Forschungen 1. 103, KfF 1. 255; Friedrich KfF 1. 92-7; Hrozný, AOr. 1. 323 f.; Sommer, AU 350-61.

63. Sign No. 2 [27] has in Akkadian the four values *AH*, *EH*, *IH*, *UH*, according to the quality of the preceding vowel, and so frequently in Hittite. I write *iḥ* instead of *eḥ* so as not to mislead those who are unfamiliar with cuneiform into the belief that there is here independent evidence for the vowel *e*.

64. The verbs with stem ending in *iyah* show occasional by-forms without the sign *ya*; e.g. *i-ši-aḥ-ta* (KUB 5. 22. 1. 20; 24. 5. 1. 9, 33, 2. 14) = *i-ši-ya-aḥ-ta*; [*ku-r*] *u-ri-aḥ-ta* (KUB 19. 9. 1. 23) = *ku-u-ru-ur-aḥ-ta* (! KBo. 2. 5. 1. 9) = *ku-u-ru-ri-ya-aḥ-ta*; *ku-ru-ri-aḥ-ḫi-ir* (KUB 19. 9. 1. 25) = *ku-ru-ri-ya-aḥ-ḫi-ir*; *ma-ni-aḥ-ḫa-tal-la-an* (KBo. 3. 34. 2. 16): *maniyahi*; *ša-ra-az-zi-aḥ-ḫa-an-du* (KBo. 6. 29. 2. 8) = *ša-ra-az-zi-ya-aḥ-ḫa-an-du* (KBo. 6. 29. 2. 5); *šu-up-pi-aḥ-ḫi* (KUB 20. 24. 3. 35; 20. 99. 1. 21; 25. 1. 3. 29) = *šu-up-pi-ya-aḥ-ḫi*. I conclude that we may read Sign No. 2 as *aḥ* even after a dissimilar vowel (*šu-up-pi-aḥ-ḫi*, etc.), although I can find no evidence for such a reading outside this one grammatical category.⁷⁵

Long Consonants

65. Akkadian possessed a series of long consonants sharply contrasted with the corresponding short consonants; for example the passive conjugation was marked in present, preterit, and participle by lengthening the first radical consonant and the intensive conjugation throughout by lengthening the second (*IKKAŠAD* 'he gets', *IKKAŠAD* 'he is got', *UKAŠŠID* 'he gets completely'). Since these long consonants always stood between vowels, the cuneiform system provided means for writing them. There was, however, no consistency in the use of the mechanism provided; long consonants were often written single and short consonants were occasionally written double.⁷⁶

In Hittite also consonants are often written double, and with no more consistency than in Akkadian. Very frequently double writing seems to do violence to a clear etymology, e.g. *kat-ta* 'with, down' : Gk. *κατά*; *a-ap-pa* 'back, again' : Gk. *ἀπό*; *ma-al-la-an-zi* 'they grind' : Lat. *molo*; *gi-im-ma-an-za* 'winter' : Skt. *hemantás*; *wa-aš-ša-an-zi* 'they clothe' : Skt. *vasate* 'they wear'; *pár-ku-nu-um-mi* 'I forgive', *ú-wa-am-mi* 'I come', *e-ku-uš-ši* 'you drink, cause to drink', *na-ak-ki-ya-an-ni-eš-ši* 'you revere', *pa-iz-zi* 'he goes' : Skt. *émi*, *eṣi*, *eti*; *ar-nu-um-me-ni* 'we bring', *wa-aḥ-nu-ut-te-ni* 'you turn' : Gk. *ἄρνυμεν*, *ἄρνυτε*; *tum-me-ni* 'we take', *da-at-te-ni* 'you took' : Gk. *δίδομεν*, *δίδοτε*; *pí-en-na-i* 'he

⁷⁵ *i-da-a-la-u-aḥ-ḫu-un* = *idalawahun* is rather an instance of *u* = *wa* [46].

⁷⁶ Delitzsch, Ass. Gramm. §22.

leads with him' from *pe + nai* : Skt. *nā-*; *ku-iš-ša* = *kwis-a* 'quisque'; *nu-uš-ša-an* = *nu-san* (sentence connective *nu* and enclitic particle *-san*); *nu-wa-an-na-aš* = *nu-wa-naš* (sentence connective + particle of direct quotation + enclitic *nas* 'us'). These and many similar spellings have induced most scholars tacitly to ignore double consonants in the Hittite texts.⁷⁷

66. In the case of the stops double writing has etymological value, although not the same value as in the ancient IE languages. The original voiceless stops tend to be written double, and frequently a non-phonetic vowel is introduced to make the double writing possible; whereas the original voiced stops, including the voiced aspirates, are never written double except by analogy or on account of doubling in the course of word derivation or the construction of a phrase. The one voiceless aspirate that can surely be identified in Hittite (the *t* of the 2 sing. endings of the *hi*-conjugation) goes with the other voiceless stops.⁷⁸

Since voiceless stops are frequently longer than voiced stops, and since certain modern languages distinguish between long and short voiceless stops, it is probable that the Hittite distinction was at least in part one of quantity. Especially noteworthy is the length (denoted by double writing) of Germanic voiceless stops in Finnish; e.g. Finnish *merkki* from ON *merki*, *mitta* from ON *met*, *kauppa* from ON *kaup*, but *laki* from ON *lög*, *paita* from Goth. *paida*, *leipä* from Goth. *hlaiba-*. This conclusion is supported by the fact that other consonants than the mutes are often written double, and in their case double writing, if significant at all, could scarcely denote anything but length.

The following list summarizes the facts upon which this general statement is based. The several etymologies are discussed elsewhere; see the word index. Occasional neglect of the double writing is not noted; Akkadian double consonants are not written consistently, and no scholar familiar with cuneiform would expect consistency in such a matter. If, however, the single writing is about as frequent as the

⁷⁷ The matter has been discussed sensibly by Kretschmer, KIF 1. 303-7, largely on the basis of proper names and loan-words.

⁷⁸ Mudge observed that original *p* is usually written double in Hittite, and I developed the idea (JAOS 52. 1-12). I was formerly in doubt about the phonetic significance of the Hittite orthography, but Einarsson, Lang. 8. 177-82, has corrected my impression of the usual time-ratio between voiced and voiceless stops, and has suggested striking modern parallels. Holger Pedersen kindly called my attention to the Finnish parallel. The same point is implied by Einarsson's geographical examples (179). W. Petersen, Lang. 9. 22 f., interprets the double writing in Hittite as indicating fortis.

double, examples of both are given, and if it is considerably more frequent that fact is stated. On the other hand, if the single writing is normal and to be expected in a word, even a few instances of the double writing are sufficient to invalidate an etymology.⁷⁹ No attention is paid to initial or final stops, or to those written next another consonant; for these could not be written double. In case a word is extremely rare I have indicated for each form the total number of occurrences of which I have record.

Words with IH *p*

apa = Gk. ἀπό 'from, back'

a-ap-pa, *ap-pa*

ep-, *ap-* = Skt. āp- 'get'

ap-pa-an-zi, *e-ip-pu-un*, *e-ip-pu-en*, *e-ip-pir*, *ap-pa-an-du*,
etc.

hapatis = Gk. ὑπηδός 'retainer'

ha-pa-a-ti-in (2), *ha-pa-ti-ya-wa-an* (1)

harp- = Skt. *arpaya-* 'throw, place'

har-ap-pa-an-zi (1)

karp-, *karpiya-* = Lat. *carpo* 'pluck'

kar-ap-pa-an-zi, *kar-ap-pi-an-zi* (1), *kar-ap-pu-un* (1), *kar-ap-pa-an*

lip- 'smear' : Gk. λίπος 'fat'

li-ip-pa-an-zi (1)

li-pa-a-an-zi (1)

papars- 'sprinkle' : Skt. *pr̥ṣat* 'drop of water'

⁷⁹ In JAOS 52. 2-8, I included two words in which I assumed original voiced stops that were frequently written single in Hittite. One of these, *a-ki* 'dies', *ak-kán-zi* 'they die', etc., I formerly (Lang. 3. 165) identified with Lat. *ago*, Gk. ἄγω, Skt. *ājati*; but the etymology was always semantically unsatisfactory, and the phonological defect of the frequent *kk*, *gg* is enough to disprove it. The elimination of this word leaves *hwitiyazi* 'leads, draws': IE *wedh-* 'lead, carry, marry' the only Hittite word with frequently doubled mute for which there is no satisfactory explanation. I must therefore doubt this etymology too, although it is semantically not unsatisfactory.

pa-ap-pár-aš-zi, pa-ap-pár-ša-an-zi, pa-ap-pa-<ar>aš-ša-an-ta, pa-ap-pár-aš-kán-zi

spant- = Gk. *σπένδω* 'pour a libation'

ši-ip-pa-an-ti, ši-ip-pa-an-ta-an-zi, ši-ip-pa-an-da-aš, ši-ip-pa-an-te-ir, ši-ip-pa-an-za-kán-zi, etc.

ši-pa-an-ta-aḥ-ḥi, ši-pa-an-ti, ši-pa-an-da-an-zi, ši-pa-an-ta-an-za, etc. (the usual spelling)

stap- = Skt. *sthāpaya-* 'cause to stand'

iš-tap-pt, iš-tap-pa-an-zi, iš-tap-pa-aš, iš-tap-pa-an-za, iš-tap-pa-an-te-eš, etc.

supala(s) 'pig-sty' : Lat. *opilio*, Skt. *go-pālas*

šu-up-pa-la (2), šu-up-pa-la-aš (1)

trep- 'plough' : Gk. *τρέπω* 'turn'

te-ri-ip-pa-an (1), te-ri-ip-pu-u-wa-an-zi (2), te-ri-ip-pt-iš-kán-du (1)

trepis 'ploughed land'

te-ri-ip-pt-ya-aš, te-ri-ip-pt-ya-az, etc.

Words with IH bh

apas 'that' : Skt. *abhi* 'towards'

a-pa-a-aš, a-pa-aš, a-pu-u-un, a-pa-a-at, a-pt-el, etc.

krap-, krep- 'fressen' : Skt. *grabh-* 'seize'

ka-ra-a-pt, ga-ra-pt, ka-ra-pa-an-zi, ka-ri-e-pt-ir, ka-ri-pa-an-du, etc.

kwapi 'where' = Lat. *ubi*

ku-wa-pt

nepes 'sky' : Gk. *népos* 'cloud'
ne-pí-iš, *ne-pí-ša-aš*, *ne-pí-ši*, *ne-*
pi-ša-az

-pe, particle of identity : Gk. *φή*
-be

tepus 'small' : Skt. *dabhras* 'little'
te-pu, *te-e-pu*, *te-pa-u-wa-az*, *te-*
pa-u-eš, *te-pa-u-wa*, etc.

Word with IH *t* or *th*

kata = Gk. *κατά* 'with, along,
down'
kat-ta

kutar = Lat. *guttur* 'neck'
ku-ut-tar, *ku-ut-ta-ni*, *ku-ut-ta-*
ni-it

kwata = Lat. *quot* 'how many'
ku-wa-at-ta (2)

melit 'honey', *melitus* 'sweet', *mi-li-it-e-eš* (1), *mi-li-ti-iš-du* (1)
melites- 'become sweet': Goth.
miliþ
mi-li-id-du (1), *ma-li-id-du* (1)

meta(e)- 'bound' : Lat. *metor* 'lay
out, plan'
mi-ta-iz-zi (2), *mi-ta-a-nu-un* (1)

peta(e)-, *petiya-* 'fly, flee' : Lat.
peto 'go to'
pid-da-a-iz-zi, *pi-it-ta-iz-zi*, *pid-*
da-a-an-zi, *pid-da-a-it*, etc.

pi-e-da (2)

petar 'wing, tent' : Skt. *patram*
'wing'
pit-tar

star 'star' : Gk. *ἀστὴρ* 'star'
abl.: *ši-it-tar-za* (5), *ši-it-tar-*
ra-za (1)

-ta 'tibi, te' = Gk. *τοί*, Skt. *te*

nu-ut-ta, *na-aš-ma-at-ta*, *am-mu-uk-ma-wa-at-ta*, *nu-ut-ták-kán*, etc.

nata 'not'; cf. Gk. *οὐ τοί*

na-at-ta

-tu 'tibi, te' : Lat. *tū*

^DUTU.ŠI-*wa-ad-du-za-kán*, *nu-ud-du-za*, etc.

^DUTU.ŠI-*wa-du-za-kán*, *na-aš-ma-du-za-kán*, etc.

titanu- 'place' : IE *stā*- 'stand'

ti-it-ta-nu-mi, *ti-it-ta-nu-uz-zi*,
ti-it-ta-nu-an-zi, *ti-it-ta-nu-nu-un*,
ti-it-ta-nu-ut, etc.

wet- 'year' : Gk. *ἔτος* 'year'

ú-it-ti (1)

wetasas 'yearly'

ú-i-ta-aš-ši-ya-aš-ma (1)

sawetesz 'of the same year'

ša-a-ú-i-te-eš-za, *ša-ú-i-ti-iš-za*,
ša-ú-di-iš-za, *ša-ú-i-ti-iš-ta-aš*,
etc.

-ten (*i*) 2 pl. ending: Skt. -*ta(na)*

da-at-te-ni, *i-ya-at-te-ni*, *nu-un-tar-nu-ut-te-ni*, *i-ya-at-tin*, *pa-aḥ-ḥa-aš-nu-ut-te-en*, etc.

-ti, -ta, 2 sing. endings of the *hi*-

conjugation: Skt. -*tha*, Gk. -*θα*
da-at-ti, *da-it-ti*. *me-ma-at-ti*,
da-a-at-ta, *da-it-ta*, etc.

-te, -ti medio-passive ending: Gk.

-*ται*

ḥu-it-ti-it-ti (1), *lu-uk-kat-ti*, *lu-uk-kat-te* (1), *lu-kat-te* (1)

e-ša-ti, *ki-ša-ti*, *ki-iš-ta-ti*, *ki-it-ta-ti*, *e-eš-ḥa-ti*, etc. (this is the common spelling)

-ta, medio-passive ending: Gk.

-*ρο*, Skt. -*ta*

ki-it ta, *i-ya-at-ta*, etc.

-tari, medio-passive ending: Lat.

-tur

i-ya-at-ta-a-ri, *hal-zi-ya-at-ta-ri*

-taras, *-talas*, agent suffixes: IE

-ter, *-tel*

a-ku-ut-tar-aš (1), *e-ku-ut-tar-ra-*

[aš] (1), *ar-ša-na-at-tal-la-aš*,

ha-li-ya-at-tal-liš, *ma-ni-ya-aḥ-*

hi-iš-kat-tal-la-an, etc.

-t, suffix of action nouns: Lat.

salū-t-em

a-ni-ya-at-ta-an, *kar-tim-mi-ya-*

at-ta-an, *na-aḥ-šar-ra-at-ta-an*

Words with IH *d*

et-, *at-* = Lat. *edo* 'eat'

a-tu-e-ni, *a-da-an-zi*, *e-te-ir*, etc.

hapatis = Gk. ὁπηδός 'retainer'

ha-pa-a-ti-in (2)

petan 'place': Gk. πέδον 'ground'

pí-e-da-an, *pí-di*, *pí-e-di*, *pí-e-ti*,
etc.

ta- 'take': Skt. *ā-dā-* 'take'; (with
inseparable prefixes)

pí-e-da-aḥ-ḥi, *pí-e-da-i*, *pí-e-da-*
an-zi, *be-da-an-zi*,⁸⁰ *pí-e-da-aḥ-*
ḥu-un, *pí-e-da-aš*; *ú-da-a-i*, *ú-*
tum-me-e-ni, *ú-da-an-zi*, *ú-da-*
aḥ-ḥu-un, *ú-da-aš*, etc.

watarnah- 'command': Gk. αὐδή
'voice', Skt. *vad-* 'speak'

wa-tar-na-aḥ-ti, *wa-tar-na-aḥ-*
ḥu-un, *wa-tar-na-aḥ-ḥi-eš-ki-iz-*
zi, etc.

watar = Gk. ὕδωρ 'water'

wa-a-tar, *ú-i-da-ar*, *ú-wi-te-na-*
aš, *ú-e-te-na-az*, *ú-e-te-ni-it*, etc.

⁸⁰ For the value *be* rather than *píti*, see [27, fn. 26].

Words with IH *dh*

te- : Skt. *dadhāti*, Gk. *τιθημι*
‘place’; (with inseparable pre-
fixes)

ú-e-te-iz-zi, *ú-e-te-nu-un*, *ú-e-
te-it*, *ú-e-ta-at-te-en*; *pi-e-ḥu-te-
iz-zi*, *pi-e-ḥu-da-an-zi*, *pi-e-ḥu-
te-nu-un*, etc.

-tar, action-noun suffix: IE *dhro-*
a-ša-a-tar, *ḥa-aš-ša-tar*, *pa-ap-
ra-a-tar*, *ú-wa-a-tar*

Words with IH *k* (IE *k̑*, *k*, *kw*)

aku- ‘drink’ : Lat. *aqua* ‘water’

ak-ku-uš-kán-zi, *ak-ku-uš-kir*,
ak-ku-uš-kat-te-en, *ak-ku-uš-
kán-du*, etc.

a-ku-e-ni, *e-ku-ut-te-ni*, *a-ku-wa-
an-zi*, *e-ku-ut-ta*, *e-ku-ir*, etc.
(the primitive verb always has a
single consonant)

hwek-, *huk-* ‘conjure’ : Lat. *vōx*
‘voice’, Skt. *vac-* ‘speak’

ḥu-uk-ki-iš-ki-mi, *ḥu-uk-ki-iš-
ki-iz-zi*, *ḥu-uk-ki-iš-kán-zi*, *ḥu-
uk-ki-iš-ki-it*, etc.

ḥu-kán-zi, *ḥu-u-kán-zi*, *ḥu-u-ga-
u-en*, *ḥu-u-ga-an-da-aš*; *ḥu-u-ki-
iš-kán-zi*, etc.

kiki- ‘be placed’, *kikis-* ‘become’ :
Gk. *κείρα* ‘lie’

ki-ik-k[i-it-]ta-ru (1); *ki-ik-ki-
išt-a-ri*, *ki-ik-ki-ša-an-ta*, *ki-ik-
ki-išt-šu-u-wa-an*

kukurs- ‘cut off, mutilate’ : Lat.
curtus

ku-uk-kur-iš-ki-iz-zi, *ku-uk-kur-
aš-kán-zi*, *ku-uk-ku-ri-eš-kir*,
etc.

ku-kur-ša-an-te-eš (2)

luk- ‘kindle, grow light’ : Lat.
lūceo ‘shine’

lu-uk-ki-iz-zi, *lu-uk-ki-e-ir*, *lu-
uk-kán*, *lu-uk-kat-ta*, *lu-uk-kat-
ti*, etc.

sak-, *sek-* 'know' : Goth. *sathvan*
'see'

ša-ag-ga-ah-hi, *ša-ak-ki*, *še-ik-ku-e-ni*, *ša-ak-ki-is*, *še-ik-ki-ir*,
etc.; *ša-ak-ki-ya-at*

ša-kán-zi; *ša-ga-iš*; *ša-ki-ya-az-zi*;
ša-ki-ya-aḥ-zi, *ša-ki-ya-aḥ-ḥi-ir*, etc.

sakwa 'eyes' : Lat. *oculus*

ša-a-ku-wa, *ša-a-ku-it*; *ša-a-ku-wa-an*;
ša-a-ku-wa-an-ta-ri-ya-nu-un

taks- 'join' : Lat. *texo* 'weave'

ták-ki-iš-zi, *tág-ga-aš-te-ni*, *ták-ki-eš-ša-an-zi*, *tág-ga-aš-ta*, *ták-ki-iš-ki-iz-zi*, etc.

tekus- 'show' : Lat. *dīco* 'show'

te-ik-ku-uš-ša-mi, *te-ik-ku-uš-še-eš-ta*;
te-ik-ku-uš-ši-e-it; *te-ik-ku-uš-ša-nu-ut*;
te-ik-ku-uš-nu-uš-kán-du, etc.

wakar- 'be lacking', *wakariya-* 'rebel' : Lat. *cariēs* 'decay'

wa-aq-qa-a-ri, *wa-aq-qa-ri-eš* (1);
wa-ag-ga-ri-ya-zi, *wa-aq-qa-a-ri-ya-zi*,
wa-aq-qa-ri-ya-nu-un, *wa-ag-ga-ri-ya-at*, etc.

wak- 'bite' : Skt. *aś-* 'eat'

wa-a-ki, *wa-qa-aš*, *wa-a-ku-e-en*,
wa-ga-an-na, etc.

wek-, *wewak-* 'ask' : Skt. *vaś-* 'desire'

ú-e-ik-kán-zi (1); *ú-wa-ak-ki-iz-zi* (1),
ú-e-wa-ak-ki[-zi] (1), *ú-e-wa-ak-ki-nu-un* (1)

ú-e-ku-un, *ú-e-ki-ir*, *ú-e-kán-ta-an*,
ú-e-ku-wa-ar, *ú-e-ki-iš-kán-zi*, etc.

sk = IE *sk*, present suffix

az-zi-ik-kán-zi, *az-zi-ik-ki-nu-un*,
az-zi-ik-ki-id-du; *zi-ik-ki-iz-zi*,
zi-ik-kán-zi, *zi-ik-ki-it*, etc.

-*ki*, indefinite particle: Gk. πολλά-

κi

ku-e-da-ni-ik-ki, *ku-i-ta-ni-ik-ki*, *ku-e-ik-ki*

-*ka*, indefinite particle

ku-e-da-ni-ik-ka (1)

ku-e-qa (1)

Words with IH *g* (IE *ĝ*, *g*, *gw*)

neku- 'go to bed', *nekuz* 'bed time'
nekumanz 'naked' : Skt. *nagnás*,
 Gk. *γυμνός* 'naked'
ne-ku-zi, *ne-ku-ut-ta-at*; *ne-ku-uz*;
ne-ku-ma-an-za, *ne-ku-ma-an-ti*,
ne-ku-ma-an-te-eš, etc.

yukan = Lat. *iugum* 'yoke'

i-ú-kán (1), *i-ú-ga-an* (2)

Words with IH *gh* (IE *ĝh*, *gh*, *gwh*)

halukas 'message' : IH *leugh*-
 'swear, lie'
ha-lu-ga-aš, *ha-lu-kán*, *ha-lu-ki-it*,
ha-lu-ga-tal-la-an, etc.

lak- 'cause to fall, fall, lie' : Gk.
λέχος 'bed'
la-a-ki, *la-ga-a-an*, *la-ga-a-ri*; *ša-li-ga*,
ša-li-ka-ru, etc.

sakwis, *sakuniya*- 'spring', *saku-nesk*-
 'gush' : Gk. *χέω* 'pour', Eng. *gush*
ša-ku-iš (1); *ša-ku-ni-ya-aš* (2),
ša-ku-ni-ya (2); *ša-ku-ni-eš-ki-ši*
 (1)

talukaes 'long' : Gk. *δολιχός*, 'long'
da-lu-ga-e-eš (1), *da-lu-ga-aš* (1);
da-lu-ga-aš-ti (1); *ta-lu-ki-iš-zi*,
ta-lu-kiš-zi, etc.

tekan 'earth' : Gk. *χθών*, 'earth'
te-e-kán, *ták-na-aš*, *ták-ni-i*; *da-*
ga-a-an; *da-ga-an-zi-pa-aš*, etc.

67. Among the exceptions to the rule that original voiceless stops tend to be written double while original voiced stops are always written single, one group seems to have a phonological basis. Final stops from original voiced stops are frequently written double before an enclitic. Either final voiced stops became voiceless in pre-Hittite and were treated in the same way as original voiceless stops or else final consonants were lengthened before enclitics beginning with a vowel. In support of the second alternative may be cited such spellings as *am-me-el-la*, *ku-iš-ša*, *ku-e-iz-za*, *an-tu-uh-ša-tar-ra*; but they are scarcely more frequent than apparently irrational doublings in the interior of the word [65].

uk (*ú-uk*) 'I' comes from IH *eg* (cf. Lat. *ego*, Goth. *ik*), and from this word came final *k* in other Hittite personal pronouns, namely *amuk* (*am-mu-uk*) 'ego, me, mihi', *zek* (*zi-ik*) 'tu', *tuk* (*tu-uk*) 'te, tibi' [227, 228]. Before enclitics we have such spellings as *ú-ug-ga*, *ú-ug-qa*, *am-mu-ug-qa*, *am-mu-ug-qa-at*, *zi-ig-ga*, *tu-ug-ga*, *du-ug-qa*.

apat (*a-pa-a-at*) 'id', *kwit* (*ku-it*) 'quid, quod', etc. contain IH final *d* (cf. Lat. *idem*, Osc. *idit*, Umb. *ērek*, *erse*, *porsi*, Goth. *pata*). This sound functions as a stem final in Hittite as in IH [260], and when it is followed by a case ending it is always written single in our documents (e.g. *a-pí-e-da-ni*, *ku-e-da-ni*), except that the adverb *kwata(n)* 'whither' is sometimes spelt *ku-wa-at-ta*, *ku-wa-at-ta-an* under the influence of the equivalent *kwat* < IH *kwod*. Before enclitics, however, we find *a-pa-a-at-ta-ya*, *a-pád-da*, *ku-it-ta*, etc.

68. Other exceptions to our rule are to be accounted for by analogy or by doubling in the process of derivation or of phrase construction.

68a. There is no doubt of the connection of *mekis* 'great' (*me-ik-ki*, *me-ig-ga-e-š*, *me-ig-ga-uš*, *me-ig-ga-ya*) with Gk. *μέγας* 'great'. The double consonant in Hittite reflects contamination with the root of Gk. *μήκος* 'length', Lat. *macer* 'slender', etc. Av. *masišta-*, OP *maθišta-* 'highest', and kindred words belong to the root of *μήκος* and should have *i* from IE *ə*; but they have *a* by contamination with **meg-* 'great'.⁸¹ Hittite, on the contrary, shows the influence upon *mekis* 'great' of *maklanz* 'slender', or of some other word containing the same root.

68b. Although *tarup-* 'braid, plait; assemble' and *tarupesar* 'assembly, entirety' are probably related to Lat. *turba*, Gk. *τύρβη*, OIsl. *þorþ*

⁸¹ The *h* of Skt. *mah-* 'great' comes from contamination with *bṛhant-* 'tall, great'.

'crowd', their *p* is nearly always doubled if possible; e.g. *ta-ru-up-pa-iz-zi*, *ta-ru-up-pa-an-zi*, *ta-ru-up-pu-un*, *ta-ru-up-pi-ir*, *ta-ru-up-pa-an-te-eš*; *ta-ru-up-pi-eš-šar*, *da-ru-up-pi-iš-ni*. In pre-Hittite then, the stem must have been **trup-* rather than **trub-*; which reminds one that *b* was a rare sound in IE. Shall we conclude that in this word, at least, IH had *p*, which became IE *b* under unknown conditions; or rather that *b* was rare in IH just as in IE, and that it became *p* in pre-Hittite? This one etymology perhaps does not justify so definite a statement of the problem; certainly it does not furnish the solution.

68c. A clear case of consonant gemination is *utar* 'word, lawsuit' (*ut-tar*, *ud-da-a-ar*, *ud-da-na-aš*, etc.). It is probably akin to *watarnah* 'command', which I connect with Skt. *vad-* 'speak' [124], and if so its double consonant represents final *t* of the root plus initial *t* of the suffix *tar* [156]. Since IH dental + dental appears in Hittite as *tst* [126], we must assume analogical restoration. If Marstrand, Car. 141 f., is right in connecting *utar* with Goth. *waithts* 'affair' < **wekt-*, its *tt* comes from *kt* [122].

68d. In *lutas* (acc. *lu-ut-ta-an*) 'window' we have root *luk-* 'shine' and suffix *ta* [169].

69. Two consonants only are written double more often than single when they stand between vowels. Double *z* is more than twice as frequent as single *z* in that position, and the only common word that regularly shows a single intervocalic *z* is the enclitic *-za*, (*nu-za*, *nu-za-kán*, *ma-aḫ-ḫa-an-ma-za*, etc.). We must conclude that Hittite *z* was a long consonant, at least in the intervocalic position. Such spellings as *az-zi-ik-ki-iz-zi* = *azkezi* 'he eats' [142], *ma-az-za-az-zi* = *maz-zi* 'he endures', *e-iz-za-az-zi*, *e-iz-za-zi*, *e-za-az-zi* = *ez-zi* 'he eats' [126] indicate that it was long also before or after another consonant. Even more significant are the occasional spellings in which *z* is supplemented by a following *s*; e.g. *ku-na-an-za-aš-ša* = *kunanza*, *e-eš-ḫa-na-an-za-aš-ša* = *eshananza*, *ma-az-aš-ta* = *mazt* 'he endured', *iš-pár-za-aš-ta* = *sparzt* 'he escaped', *az-za-aš-te-ni* = *azteni* 'you eat' [126]. It follows that it was the sibilant component of *z* that was long.

70. Hittite *h* between vowels is written double more than eight times as often as it is written single. Since there is no such tendency in Akkadian we are justified in assuming that the sound was in some way more prominent than in that language; probably it was longer. That the length of *h* was not confined to the position between vowels is shown by such spellings as *ša-an-aḫ-ḫu-un* (KBo. 3. 3. 3. 22; 5. 9. 1. 14) = *ša-an-ḫu-un* = *sanhun* 'petii'; *tar-aḫ-ḫu-un* (passim) = *tar-ḫu-un* =

tarhun 'I was powerful'; *wa-al-aḥ-ḥa-an-zi* (KBo. 2. 2. 1. 42) = *wa-al-ḥa-an-zi* = *walhanzi* 'they beat'; *wa-al-aḥ-ḥu-un* (KBo. 4. 4. 3. 37; KUB 26. 79. 1. 8) = *wa-al-ḥu-u-un* = *walhun* 'I have beaten'; *tuh-ḥu-iš-ša-[an-zi]* (KBo. 6. 5. 3. 9) = *tuh-ša-an-zi* = *tuhsanzi* 'they take away'; *pa-aḥ-ḥa-aš-ḥi* (KBo. 5. 3. 1. 33, etc.) = *pahshi* 'I protect', *pa-aḥ-ḥa-aš-ti* (KBo. 5. 3. 1. 18, etc.) = *pahsti* 'you protect', *pa-aḥ-ḥa-aš-te-ni* (KBo. 5. 3. 4. 30, etc.) = *pahsteni* 'you protect', *pa-aḥ-ḥa-aš-ta* (KUB 1. 16. 3. 28, etc.) = *pahsta* 'you protected' (cf. *pa-aḥ-ša-an-zi* = *pahsanzi* 'they protect').

71. The remaining Hittite consonants, *l*, *m*, *n*, *r*, and *s*, are frequently written double between vowels, but more frequently they are written single. In a number of instances we may reasonably assume a long consonant arising from a combination of final consonant with initial in the course of word derivation or phrase construction. The suffix *sa* appended to *es-* 'set, sit' produces *esa-* 'treat, prepare' (*e-eš-ša-aḥ-ḥi*, *iš-ša-at-ti*, *e-eš-ša-i*, etc.), and the suffix *na* with *kwen-* 'strike' gives *kwen-* (*ku-en-nu-um-me-e-ni*, *ku-en-na-an-zi*, *ku-en-nir*, etc.). The verbal nouns in *mar* form a genitive in *mas* from *mna* (*a-ar-nu-mar* 'a carrying', gen. *ar-nu-um-ma-aš*) [130]. The genitive of verbal nouns in *tar* ends in *nas* from *tna* (*al-wa-an-za-tar* 'witchcraft', *al-wa-an-za-an-na-aš*) [132].

When final consonants are assimilated to initial consonants of enclitics we sometimes find such forms as *tu-ra-am-mi-it* = *turan-met* 'my team' (KBo. 3. 22. 79), *ḥu-ma-aš-ša-an* = *human-san* (KBo. 5. 1. 3. 16), *pi-ra-aš-še-it* = *piran-set* 'before him' (KUB 9. 28. 1. 22), *iš-ta-ma-na-aš-ša-an* = *stamanan-san* 'his ear' (KBo. 6. 3. 1. 37), *ad-da-aš-ša-an* = *atan-san* 'his father' (KUB 11. 5. 1. 10). But cf. [57].

Against all this we have to set the more numerous instances of apparently irrational doubling illustrated above [65] and also words in which an etymologically justified doubling is not orthographically recorded; e.g. *me-ma-(a-)i* 'he says': Gk. *μηνῆμαι* (the spelling with *mm* occurs occasionally); *šar-ra-ma-aš-ma-aš* = *saran-ma-smas* 'part of them however' (KUB 17. 35. 3. 11); *la-a-am-ma-a-mi-it* = *laman-met* 'my name' (KUB 1. 16. 3. 13).

72. Since consonant doubling frequently has phonetic and etymological significance, it might seem advisable to record it even in broad transliteration. This, however, would necessitate some extremely bizarre forms; e.g. *ši-ip-pa-an-ti* = *sppanti*; *wa-al-aḥ-ḥa-an-zi* = *walghanzi*; *az-zi-ik-ki-iz-zi* = *azzkkezzi*; *ma-az-za-az-zi* = *mazzzzi*. Since there is evidence that the *h* of *walh-* 'strike' is long even when not between

vowels and that the *z* of the third personal ending is also long, consistency would require that we transliterate *wa-al-aḥ-zi* = *wa-la-aḥ-zi-walhhzzi*. To avoid such forms as these I shall consistently write consonants single except that I shall write *zz* for the sound group [tsts], as in *ma-az-za-az-zi* = *mazzi*, *e-iz-za-az-zi* = *e-za-az-zi* = *ezzi*.⁸² This practice has the serious disadvantage that the Hittite analogue of the IH distinction between voiced and voiceless stops is obscured; consequently it will be necessary frequently to supplement a broad transliteration with a syllabic transliteration; e.g. *spanti* (*ši-ip-pa-an-ti*).

⁸² Furthermore we are ignorant of the quantity of many consonants, and any attempt to denote this in broad transcription would frequently tempt us to solve insoluble problems.

CHAPTER III

PHONOLOGY¹

a

73. Since Hittite *a* results from several original vowels IH *a* can be identified only on the basis of etymological considerations. In the IE languages also *a* is to some extent of ambiguous origin, and so it is possible that some of the following material belongs elsewhere. There can be no doubt, however, that *a* remains unchanged in Hittite.

alis (acc. *a-li-in*) 'white', *alpas* (*al-pa-aš*, pl. *al-pu-uš*) 'cloud' : Lith. *alvas* 'tin', Gk. *ἀλφός* 'dull-white leprosy', *ἀλωροὺς* *λευκοὺς* (Hesych.), Lat. *albus* 'white'.²

anas (*an-na-aš*) 'mother', *hanas* (*ha-an-na-aš*) 'grandmother' : Gk. *ἀννίς* 'grandmother', Thess. *ἀνώ* 'grandmother', Messapian *ana*, epithet of Aphrodite, Lat. *anus* 'old woman', OHG *ana* 'grandmother'. Apparently *hanas* contains a prefix [149]; cf. Lyc. *e,ni* 'mother' (?) and *χῆνα* 'grandmother'(?).

apa (*a-ap-pa*) 'behind, back, again' : Skt. *apa*, Gk. *ἀπό* 'back, from'.

ark- (verbal noun *ar-ku-u-wa-ar*) 'shut in, ward off' : Gk. *ἀρκέω* 'ward off', Lat. *arceo* 'keep away, shut in', Arm. *argel* 'obstacle'.³

arwa(e)- (*a-ru-wa-a-iz-zi*, 3 pl. *ar-wa-an-zi*) 'bow down' : Gk. *ἀρά* 'prayer, curse', *ἀράομαι* 'pray, curse', Arc. *κάταρφος* 'accursed'.

hanz (*ha-an-za*) 'front', as adv. 'in front', *hanti* (*ha-an-ti*) 'in front, especially, separately', *hanta* (*ha-an-da*—KBo. 3. 21. 2. 12) 'forth', *hantezis* (*ha-an-te-iz-zi-iš*) 'first' (*hanta* prefixed to *i-* 'go' with suffix *zi* [163]) : Gk. *ἀντί* 'opposite', *ἄντρα* 'face to face', Lat. *ante* 'before'.⁴

harkis (*har-ki-iš*) 'white, bright' : Gk. *ἀργός* 'shining', *ἀργικέραυνος* 'with bright lightning', Skt. *arjunas* 'white'.

-ma : Thess. *μά* 'however'.

saklais (acc. *ša-ak-la-a-in*) 'rite, custom, law' : Lat. *sacer* 'sacred', *sancio* 'ordain', ON *sätt*, *sætt* 'treaty', OE *seht* 'treaty'.

¹ The material is arranged according to the sounds of IH rather than of IE, but the two are so similar that this will cause no difficulty [9].

² Mudge, Lang. 7. 252.

³ Hrozný, MDOG 56. 28, SH 78 fn. 1.

⁴ Lang. 6. 150; Forrer, JA 217. 243; Sommer, AU 140 f., 185.

ā

74. IH *ā* remains. On the question of quantity, see [49b].

arha (*ar-ḥa*) 'away', *arhi* (*ar-ḥi*) 'on the farm', *arhz* (*a-ra-aḥ-za*) 'outside, around', *arhzanta* (*a-ra-aḥ-za-an-da*) 'around', *arhzenas* (*a-ra-aḥ-zé-na-aš*) 'neighbor, foreigner' : Skt. *āre* 'afar', *ārāt* 'from afar', Lith. *óras* 'the open air', Lat. *ārea* 'building site' (< **ārei-ā*). Beside IH *ārḥ-*, *ārḥo-* there were words with short vowel from the same root; Skt. *araṇas* 'foreigner' (Hittite *arhzenas* is a contamination of **arhenas* with *arhz* 'outside'), Gk. *ἀρόω*, Lat. *aro*, Goth. *arjan* 'plough', etc. The IH stem *ārḥ(o)-* meant 'farm', and from the point of view of the central group of farm buildings one gets the adverbial meanings of several case forms.

hapatis (acc. *ḥa-pa-a-ti-in*) 'vassal' : Gk. *ὀπηδός*, *ὀπαδός* 'attendant' [149].

man (*ma-a-an*, *ma-an*) 'if, when, although; ἄν'⁵ : Gk. *μῆν*, Dor. *μᾶν* 'truly, surely'.

mema- (2 s. *me-ma-at-ti*, pret. *me-ma-aš*, *me-im-ma-aš*) 'say' : Gk. *μύμνημαι* 'remember', *μνήσθαι* 'mention, tell'.⁶

stapi (*iš-tap-pí*, *iš-da-a-pí*) 'shuts in, stores away' : Skt. *sthāpayati* 'causes to stand', Gk. *ἵστημι*, Lat. *stāre*.

tayezi (*ta-i-e-iz-zi*, *ta-a-i-iz-zi*, *da-a-i-e-iz-zi*) 'steals' : Skt. (*s*)*tāyus* 'thief', Gk. *τηράω* 'deprive of', ChSl. *taja*, 'hide'.

ya- (*i-ya-at-ta*, *i-ya-at-ta-a-ri*) 'go' : Skt. *yāti* 'goes', *yānas* 'road', Lith. *jóti* 'ride'.

The gen. s. of the *a*-declension ends in *as* [194a], and this must come from the *ā*-stem gen.; e.g. Gk. *χώρās*, *τιμῆς*, Lat. *familiās*, Goth. *gibōs*.⁷

e

75. IH *e* remains, except before *r* + cons. [76].

esmi (*e-eš-mi*), *eszi* (*e-eš-zi*) : Gk. *εἰμι*, *ἐστὶ*, Lith. *esmi*, *ēst(i)* 'am, is'.

eshar (*e-eš-ḥar*) : Gk. *ἐσθ*, Skt. *aśṛk* 'blood'.⁸

eshas (*iš-ḥa-a-aš*, dat. *eš-ḥe*) : Lat. *erus* 'master'.

et- (1 s. *e-it-mi*, 3 s. *e-za-az-zi*, pret. 3 s. *e-iz-ta*, 3 pl. *e-te-ir*) : Lat. *edo* 'eat'.⁹

hwekzi (*ḥu-u-e-ik-zi*, *ḥu-ik-zi*) 'conjures' : Skt. *vakti* 'speaks', Gk. *ἔπος* 'word'.

⁵ Hrozný, JA 218. 313; Sommer, AU 73 fn. 1, 126 fn. 1.

⁶ Lang. 7. 117; Sommer, AU 39 f.

⁷ Petersen, AJP 51. 252 fn. 4.

⁸ Friedrich, Real. Vorg. 1. 131.

⁹ Hrozný, SH 61.

hweszi (*hu-i-iš-zi*) 'lives', *hwesus* (neut. *hu-u-e-šu*, *hu-e-šu*, *hu-i-šu*) 'alive, raw' : Skt. *vasati* 'tarries, dwells', Goth. *wisan* 'tarry, dwell, be', OE *wesan* 'be'.

kenu (*gi-e-nu*) : Lat. *genū* 'knee'.¹⁰

kesar (*ki-eš-šar*) : Gk. *χείρ* < **χεσρ*, Toch. A *tsar*, B *šar* 'hand'.¹¹

kwenzi (*ku-en-zi*) 'strikes, kills' : Skt. *hanti* 'strikes, kills', Gk. *θείνω*, *θεινω*, 'strike', ChSl. *žena*, 'drive'.¹²

saleka (*ša-li-i-ga*, *ša-li-ga*) 'lies with' : Gk. *λέχεται κοιμάται* (Hesych.), *ἐλεξα*, *λέχος*, Goth. *ligan* 'lie', ChSl. *leža*, 'lie'.¹³

lenkzi (*li-ik-zi*, *li-in-ga-zi*) 'swears' : Gk. *ἐλέγχω* 'examine, confute, put to shame'.¹⁴

mekis (*me-ik-ki-iš*)¹⁵ : Gk. *μέγας*, Goth. *mikils* 'great'. On the double writing of *k*, see [66].

melit (*mi-li-it*) : Lat. *mel*, Arm. *metr*, Goth. *miliþ* 'honey', Gk. *μέλισσα*, *μέλιττα* 'bee'.¹⁶

mema- (1 s. *me-ma-aḥ-ḥi*, 2 s. *me-e-ma-at-ti*, 3 s. *me-ma-a-i*) 'say' : Gk. *μύνημαι*, Lat. *memini* 'remember'.

neya- (3 pl. *ne-e-ya-an-zi*, midd. *ne-ya-ri*, *ne-e-a-ri*) 'lead, drive, turn' : Skt. *nayati*, Av. *nayeiti* 'leads'.

nepes (acc. *ne-pi-iš*) 'sky' : Gk. *νέφος* 'cloud', Lat. *nebula* 'mist, fog', ChSl. *nebo*, *nebese* 'sky'.

newet (inst. *ne-e-u-it*) 'new', *newah-* (pret. 1 s. *ne-wa-aḥ-ḥu-un*, 3 pl. *ne-wa-aḥ-ḥi-ir*) 'renew' : Gk. *νέος* 'new', *νεῶν* 'plough anew', Goth. *niujis* 'new', OHG *niuwōn* 'renew'.¹⁷

petan (*pi-e-da-an*) 'place' : Gk. *πέδον*, Umbr. *peṛum*, *persom-e* 'ground'.

peta(e)- (*pít-ta-a-iz-zi*, 3 pl. *píd-da-an-zi*, imper. 2 s. *pí-e-da*) 'flee, fly, fall', *petar* (*pít-tar*) 'wing' : Gk. *πέτομαι* 'fly', *ἔπεσον* 'I fell', Lat. *peto* 'go to', Skt. *patram* 'wing', Lat. *penna* 'feather'.

septamas (dat. *ši-ip-ta-mi-ya*) : Lat. *septimus*, Skt. *saptamas* 'seventh'.

seszi (*še-eš-zi*) : Skt. *sasti* 'sleeps'.¹⁸

trepzi (*te-ri-ip-zi*) 'ploughs' : *τρέπω* 'turn', Skt. *trapate* 'is embarrassed'.

wekzi (*ú-e-ik-zi*) 'asks' : Skt. *vaṣṭi* 'desires', Gk. *ἐκών* 'willing'.

¹⁰ Hrozný, BoSt. 3. 184 fn. 2.

¹¹ RHA 1. 84.

¹² Hrozný, BoSt. 3. 73 fn. 8.

¹³ The active of this verb is *salekzi* (*ša-li-ik-zi*), whose precise meaning is uncertain; Sommer, AU 276.

¹⁴ Petersen, Lang. 9. 18, refers *lenkais* to Lat. *ligāre*.

¹⁵ Sommer, AU 145.

¹⁶ Ehelolf, OLZ 36. 1-7.

¹⁷ Sommer, Klf 1. 347; Sturtevant, Lang. 7. 121.

¹⁸ I owe this etymology to Mudge.

wemiyezi (*ú-e-mi-ya-zi*, *ú-e-mi-e-zi*, *ú-e-mi-e-iz-zi*) 'comes upon, finds' : Lat. *venio* 'come', *invenio* 'find', Goth. *qiman* 'come', Av. *jamaiti* 'goes'. Gk. *βαίω* thus seems to differ from Lat. *venio* in ablaut as OE *cuman* from Goth. *qiman*.

wes- (imper. 2 pl. *ú-e-eš-tin*, midd. 3 pl. *ú-e-eš-ša-an-ta*) 'put on, clothe' : Skt. *vaste* 'puts on, clothes oneself', Gk. *ἔσσαι*, *ἔσται* 'clothe, put on', Lat. *vestis* 'garment'.

weti (dat. *ú-it-ti*) 'year', *sawetesz* (*ša-ú-i-ti-iš-za*) 'of the same year' : Gk. *ἔτος* 'year', Lat. *vetus*, *vetustus* 'old', ChSl. *vetochъ* 'old'.

Several personal endings contain *e* that must come from IH *e*; 1 pl. *weni*, *meni*, *wen*, *men* agree in vocalism with Gk. *μεν*, Dor. *μες*, Lith. *me*; 2 pl. *teni*, *ten* contain IH *te* : Gk. *τε*, Lat. *te*, Lith. *te*; IH 3 pl. *enti* (e.g. *sēnti* 'they are') survives in *yenzi* (*i-en-zi*, *i-e-en-zi*) 'they make' : Gk. *ἵμι*, Lat. *iacio* 'throw', Toch. B *jam* 'make', *wenzi* (*u-en-zi*—KBo. 6. 2. 4. 13) beside *wanzi* (*u-wa-an-zi*) 'they come' : Skt. *agām* 'I came', and in a few other forms. The thematic vowel regularly appears as *e* (usually written *i*) in 3 s. and frequently in the other forms where it is to be expected [296].

76. IH *e* becomes *a* before *r* plus a consonant.

arszi (*ar-aš-zi*, *a-ar-aš-zi*) 'flows' : Skt. *arṣati* 'flows', Gk. *ἀπεράω* 'pour out'.¹⁹

pars- (3 pl. *pār-ša-an-zi*, pret. *pār-aš-ta*, pret. 3 pl. *pār-še-ir*) 'flee'; with suffix *h* [348], *parhzi* (*pār-aḥ-zi*, *pār-ḥi-zi*, *pār-ḥa-zi*) 'drives' : Gk. *πείρω* 'pierce', *περάω* 'pass through, over'.

pe harzi (*pí-e ḥar-zi*) 'carries' : IE *bherti* < IH *bhe herti*. The IE word shows haplology; pre-IE *ehe* became *e* before the loss of *h*, and thus the vowel escaped lengthening. In 3 pl. IH *bhe hrenti* must have yielded IE *bhērenti*, but the vowel of the initial syllable was shortened by analogy. Most of the other IE verb forms and derivatives show the vocalism that must have belonged to IH *her-*. The Hittite antevocalic stem *hark-* (3 pl. *ḥar-kán-zi*, pret. 1 s. *ḥar-ku-un*, 3 pl. *ḥar-kir*, imper. 2 s. *ḥar-ak*, 3 pl. *ḥar-kán-du*, etc.) shows the same extension in *gh* that appears in IE *bhergh-* 'keep, preserve' (Goth. *baírgan*, etc.). IH *bhe hergh*, again with haplology, yielded IE *bhergh-*.

starna (*iš-tar-na*), *starne* (*iš-tar-ni*) 'between, among' : Gk. *στέρον* 'breast'. The Hittite adverb exhibits two forms of an *a*-stem dat. [195a].

tarma(e)- (*tar-ma-iz-zi*, 3 pl. *tar-ma-a-an-zi*) 'delimit, fix' < IH *termnāye/o-* : Lat. *termino* 'mark off by boundaries' < IH *termnāye/o-*.

¹⁹ Lang. 8. 120.

warpzi (*wa-ar-ap-zi*, *wa-ra-ap-zi*) 'washes' (especially with soap): Goth. *af-swairban* 'wipe off', OE *sweorfan* 'scrub' [143a].

In addition to the above root-class presents with radical *ar* we have *harkzi* (*har-ak-zi* : 1 pl. *har-ku-e-ni*) 'is destroyed, perishes', *harpzi* (*har-ap-zi* : 3 pl. *har-pa-a-zi*) 'places', *harszi* (*har-aš-zi* : infin. *har-šu-wa-an-zi*), *karpzi* (*kar-ap-zi* : 3 pl. *kar-pa-an-zi*) 'raises, takes, musters', *mark-* (3 pl. *mar-kán-zi*, pret. 3 s. *ma-ra-ak-la*) 'cut up', *paparszi* (*pa-ap-pár-aš-zi*) 'sprinkles, pours', *starkzi* (*iš-tar-ak-zi* : *iš-tar-ki-ya-az-zi*) 'is ill, there is illness', *tarhzi* (*tar-aḥ-zi*, *ta-ru-uḥ-zi*) 'is powerful, conquers', *varszi* (*wa-ar-aš-zi* : part. *wa-ar-ša-an-te-eš*) 'mulcet, mulcetur'. Some of these words may have had another vowel than *e* in IH, but that vowel must have been normal in root-class singulars, as it was in IE.

There are a few instances of analogical *er* + cons.; *kwerzi* (*ku-ir-zi*, *ku-e-ir-zi*) 'cuts' and *kwert* (*ku-e-ir-la*) 'cut' beside *kuranzi* (*ku-ra-an-zi*) 'they cut' follow the model of *kwenzi* : *kunanzi*, etc. *mert* (*me-ir-la*) 'died' and *mertu* (*me-ir-du*) 'let it die' show the same vowel as the neut. pl. of the participle, *meranta* (*me-ir-a-an-da*) [300]. Sometimes *er* before a consonant is from IH *ēr* [77].

\bar{e}

77. IH \bar{e} remains in Hittite except before *y* [78]. On the question of quantity, see [49b].

ekuzi (*e-ku-zi*, *e-ku-uz-zi*) 'drinks, causes to drink' : OIsl. *æger* 'sea'. The meaning of the Hittite verb recurs in Toch. B. *jōkə*. 'he drinks', *mā jokalle* 'one should not drink'. For reduced grade forms, see [86].²⁰

epzi (*e-ip-zi*) 'takes, begins' : Skt. *āpnoti* 'obtains', Lat. *coēpi*²¹ 'I began'. Skt. desiderative *īpsati* < **i-əp-* suggests the ablaut \bar{a}^z : *ə*, while Lat. and Hittite show the quality of the full grade vowel.²²

ermas (acc. *ir-ma-an*), *ermalas* (*ir-ma-la-aš*), *ermalan* (*ir-ma-la-an-za*) 'ill' : Gk. *ῥέμα* 'gently, softly', Goth. *armōstai* (superl.) 'ἐλεεινότεροι', OIsl. *armr*, OE *earm*, OHG *aram*, *arm* 'poor'.

eszi (*e-eš-zi*) 'sets, sits', *esa* (*e-ša*), *esari* (*e-ša-ri*) 'sits' : Skt. *āste* 'sits', Gk. *ἵσται* 'sits'.²³

kreps (*ka-ri-pa-aš*) 'he devoured' beside *krapī* (*ka-ra-a-pt*) 'devours' : Skt. *jagrābha* 'he seized', Eng. *grab*, Lith. *grabùs* 'good at stealing' [342].²⁴

²⁰ Hrozný, SH 42 f., 61 f.; Pedersen, Group. 40; Sturtevant, RHA 1. 78.

²¹ Sommer, Handbuch der Lateinischen Laut- und Formenlehre³ 116; Stolz-Leumann, Lat. Gramm.⁵ 79.

²² RHA 1. 78.

²³ Friedrich, ZDMG 76. 158.

²⁴ Lang. 8. 130.

westaras (ú-e-ěš-ta-ra-aš) 'shepherd' beside *wesís* (acc. ú-e-ěš-in) 'pasture', *wesiya-* (mid. ú-e-ěš-ya-at-ta-ri) 'graze' : Av. *vāstar-* 'shepherd', *vāstra-* 'fodder, pasture'; cf. Mlr. *dofeotar* (**vevos-*) 'they ate', Goth. *frawisan* 'use up', *wizōn* 'revel', OHG *wastel* 'cake'.²⁵

wetezi (ú-e-te-iz-zi) 'builds' < IH *we-dhēti* 'puts hither, sets in place' : Gk. *τίθησι* 'places'.

zek (zi-ik) 'tu' : Osc. *tiium*, *tiú* 'tu'; both Hittite and Oscan represent IH *tē* [224, 228].

sekweni (še-ik-ku-e-ni) 'we know', *seker* (še-ik-ki-ir) 'they knew', *sekten* (še-ik-tin) 'know ye' beside *saki* (ša-ak-ki) 'he knows' : Goth. *sēhum* 'we saw' beside *sah* 'he saw', Umbr. *prusikurent* 'pronuntia-verint'. For the ablaut *a/e* < *o/ē* in the *hi*-conjugation, see [342].

erteni (e-ir-te-ni) 'you arrive', *erwen* (e-ru-u-en) 'we arrived', *erten* (ir-te-in) 'you arrived' beside *ari* (a-ar-i) 'he arrives' : Skt. *āra*, *āritha*, *ārur* 'have gone' beside Gk. *ἐρχομαι* 'come' (< **er-skō-* ?), *ῥωπα* 'move', etc. The Skt. perfect has radical *ā* throughout, which may correspond either to the Gk. *ω* or to the *ē* of pre-Hittite. The Hittite verb, however, shows the alternation *a/e* which we have just seen in *saki*, *sekweni*, and this implies IH *o/ē*. Furthermore IH *er* before a consonant yields Hittite *ar* [76]; therefore Hittite *er* before a consonant must represent original *ēr* unless it is analogical, and in this verb the singular forms show *ar*.²⁶

The ending of the pret. 3 pl. is *er* (e-še-ir 'they were', *ar-nu-e-ir* 'they brought', *a-ú-e-ir* 'they saw', *da-a-i-e-ir* 'they placed'). Since this cannot correspond with the reduced grade endings of the Indo-Iranian perfect (Skt. *ur*, Av. *arə*), it probably goes with Lat. *ēre*, although we are left without an explanation of the final vowel of the Lat. ending.²⁷

The inst. ending of *a*-stems is *et* (*ha-aš-še-it*, *le-eš-ēi-it*), which corresponds to IE *ēt* of the abl. (Skt. *devāt*, lat. *facilumēd*) [197a].

That the change of IH *er* before a consonant to Hittite *ar* is not shared by IH *ēr* before a consonant is shown by Hittite *ermas*, *ermalas*, *ermalanz* 'ill' and by the plural forms of *ari* 'arrives', namely *erteni*, *erwen*, *erten*.

²⁵ On the supposed Skt. *vas-* 'eat', see Oldenberg on RV 1. 174. 3 and 8. 4. 8.

²⁶ Milewski, RO 8. 102-4, and others see in such forms assimilation of radical *a* to the vowel of the ending. They are not troubled by the very frequent forms like *yaweni*, *yateni*, *suwaten*, *akweni*, *wakwen*, *tateni*, *tawen*, *tarnwen*, *awer*, or on the other hand by *krepanzi*, *sekanz*, *newahantu*, *yanewan*, *neyanzi*, *esa*, *esati*, *kesat*, *kesanz*, etc. Cf. fn. 38.

²⁷ Otherwise Stolz-Leumann, Lat. Gramm. § 338.

78. Just as IH *ēi* and *ēu* become Hittite *ai* and *au* [94b, 95], so IH *ēy* and *ēw* become Hittite *ay* and *aw*.

The *i*-stems and *u*-stems make forms with lengthened grade *ēy* and *ēw* as follows: gen. s. *lenkayas* (*li-in-ga-ya-aš*), abl. s. *salayaz* (*šal-la-ya-az*), pl. *mekaes* (*me-ig-ga-e-eš*), pl. *mekaus* (*me-ig-ga-a-uš*), pl. neut. *mekaya* (*me-ig-ga-ya*), pl. *supayas* (*šu-up-pa-ya-aš*);²⁸ gen. s. *harnawas* (*har-na-a-u-wa-aš*), abl. s. *asawaz* (*a-aš-ša-u-wa-az*), pl. *italawes* (*i-da-la-u-e-eš*), pl. neut. *italawa* (*i-da-a-la-u-wa*). For the loss of *y* in certain of these forms, see [108].

o

79. IH *o* becomes Hittite *a*.²⁹

apa (*a-ap-pa*) 'behind, back' : Gk. *ἄπο*.

arpas (acc. *ar-pa-an*) 'bad luck' : Gk. *ὀρφανός* 'orphan', Lat. *orbus* 'bereft', Goth. *arbi* 'inheritance', *arbaiþs* 'distress, toil'.

haras (*ha-a-ra-aš*), gen. *haranas* (*ha-ra-na-aš*) : OHG *aro*, *arn* 'eagle', Gk. *ὄρνις* 'bird'.³⁰

hastai (*ha-aš-ta-i*) 'bones'³¹ : Skt. *asthi*, Gk. *ὀστέον*, Lat. *os* 'bone'.

kwat (*ku-wa-at*) 'whither, why' : Lat. *quod*.

pra (*pa-ra-a*) 'forth' : Gk. *πρό*, Skt. *pra*; but cf. Lat. *prō*, Av. *frā*.

sakwa (*ša-ku-wa*, *ša-a-ku-wa*) 'eyes' : Gk. *ὄσσε* 'eyes', *ὄμμα* 'eye', *ὄψομαι* 'I shall see', Lat. *oculus*.

stamar (GEŠTUK-*ar*, inst. *iš-ta-ma-an-ta*), *stamanas* (acc. *iš-ta-ma-na-aš-ša-an* for *-an-ša-an*) 'ear' : Gk. *στόμα* 'mouth', Av. *staman-* 'mouth' (of a dog).

The prefix *ha-* < IH *ho-* : Gk. *ὁ-*; e.g. *hapatis* (acc. *ha-pa-a-ti-in*) 'vassal' : Gk. *ὀνηδός* 'attendant, squire', *hastwer* (*ha-aš-du-e-ir*, *ha-aš-du-ir*) 'boughs, brush-wood' : Gk. *ὄξος*, Goth. *asts* 'bough'.

The vowel *a* always characterizes the singular of consonant stems of the *hi*-conjugation, as *o* frequently does the singular of the IE perfect; e.g. *ari* 'arrives' beside *erteni* 'you arrive'; *saki* 'knows' beside *sekweni* 'we know'; *kanki* (*ga-an-ki*) 'hangs' : Goth. *hāhan*, Eng. *hang*; *krapī* (*ka-ra-a-pī*) 'devours' : Skt. *jagrābha* 'he seized'; *laki* (*la-a-ki*) 'causes to

²⁸ Sommer, AU 357 fn. 1.

²⁹ Milewski, RO 8. 104 f., holds that original *o* before *m* or *n* yields Hittite *u*, on the basis of *uni* [250] 'is' < **oni*, acc. s. *apun* [252], *kun* [251], pret. 1 s. *taskun*, etc. [389], midd. 2 pl. *yatuma*, etc. [431]. He overlooks *spanāi* < **sponte*, *stamar*: *στόμα*, *petan* : *πέτον*, etc.

³⁰ Mudge, Lang. 7. 252 f.

³¹ Sommer, AU 181.

fall' beside *saleka* 'lies with' : Gk. $\lambda\epsilon\lambda\omicron\chi\upsilon\acute{\iota}\alpha \cdot \lambda\epsilon\chi\acute{\omega} \gamma\epsilon\nu\omicron\mu\acute{\epsilon}\nu\eta$ (Hesych.); *spanti* (*ši-pa-an-ti*, *ši-ip-pa-an-ti*) 'pours a libation' : Lat. *spopondi* 'I promised'.

Since the Hittite *a*-stems correspond in part to the IE *o*-stems [180], we may list here acc. *arpan* (*ar-pa-an*) 'bad luck' : Lat. acc. *orbum* 'bereft, destitute'; *eshas* 'master' : Lat. *erus*; *hahas* 'grandfather' : Lat. *avus*; *petan* 'place' : Gk. $\pi\acute{\epsilon}\delta\omicron\nu$.

The gen. s. of consonant stems ends in *as*; e.g. *nepesas* (*ne-pí-ša-aš*) 'of the sky' corresponds to Gk. $\nu\acute{\epsilon}\phi\epsilon\omicron\varsigma$ 'of a cloud' [194c].

The medial endings *ta* (prevailing 3 s. pres.) and *nta* (3 pl. pres.) are cognate with the Gk. secondary endings $\tau\omicron$ and $\nu\tau\omicron$ [284, 432].

80. IH *ow* before a vowel becomes Hittite *uw*.

suwa(e)- (*šu-wa-a-iz-zi*, *šu-wa-i-iz-zi*, 3 pl. *šu-wa-an-zi*, *šu-u-wa-an-zi*) 'press out, fill,'³² give as security' is marked as a denominative verb by its formation [310], but no Hittite noun from which it could be derived is quotable. Probably it is an inherited derivative of IH *sowos*, whence Skt. *savas* 'extraction of soma'. If so the IH verb was *sowāyeti*.

huwai (*hu-u-wa-a-i*, *hu-u-wa-i*, *hu-wa-a-i*) 'runs, marches, flees' comes from the IH perfect *ēi* (cf. Skt. *iy-āy-a* 'he went') with the prefixes *ho-we*. Contraction to **howēi* was doubtless very early, and this yielded Hittite *huwai*. Most of the other Hittite forms resulted from analogy; *tai* (*da-a-i*) 'he places' : *tiyanzi* 'they place' : *tiyer* (*ti-i-e-ir*) 'they placed' = *huwai* : *huwiyanzi* : *huwiyer* (*hu-u-i-e-ir*).

ō

81. IH *ō* becomes Hittite *a*.³³ On the question of quantity, see [49b]. *laman* (*la-a-ma-an*) 'name' : Lat. *nōmen* 'name', with dissimilation of the first *n*.³⁴

paszi (*pa-a-aš-zi*), *pasi* (*pa-a-ši*) 'drinks' : Skt. *pāti* 'drinks', *pāsta* 'he drank', Gk. $\pi\acute{\omega}\mu\alpha$ 'drink', Lat. *pōtus* 'drunk', *pōtor* 'drinker', Lith. *puóta* 'drinking party', etc.³⁵

tati (*da-at-ti*, *ta-at-ti*) 'you take', *tata* (*da-a-at-ta*, *da-at-ta*) 'you took' : Skt. *dadātha* 'you gave', Gk. $\delta\acute{\iota}\delta\omega\mu\iota$ 'give', Lat. *dōnum* 'gift', etc.

watar (*wa-a-tar*) 'water' . Gk. $\upsilon\delta\omega\rho$; note that the Hittite word has reduced grade of the first vowel [88].

The occasional datives in *a* from *a*-stems, as *aruna* (*a-ru-na*) 'to, in

³² For the meaning 'fill', cf. KUB 25. 22. 3. 10 f.

³³ Otherwise Milewski, RO 8. 105 f.

³⁴ Hrozný, JA 218.316 f.; Sommer, AU 258.

³⁵ Lang. 8. 120.

the sea', contain the IH variant of *ōi*, with pre-IH loss of the final *i*; cf. Lat. *equō* [195a].

The ending of the abl. s. of *a*-stems is *az* (*a-ru-na-az*, *a-ša-an-du-la-az*, *a-aš-ka-az*, *ir-ḥa-az*), and it corresponds in vocalism with IE *-ōt*, Skt. *devāt*, Lat. *dōnōd* [196a].

The nom.-acc. dual of *a*-stems, as *hasa hanzasa* (*ḥa-aš-ša*, *ḥa-an-za-aš-ša*) 'grandchild (and) great-grandchild', contains IH *ō*; cf. Gk. *δῶω*, Lat. *ambō* [184].

i

82. IH *i* remains in Hittite.

hanti 'in front, separately' : Gk. *ἀντι*, Lat. *ante*.

it (*i-it*) 'go' : Skt. *ihi*, Gk. *ἰθι* 'go'; *iten* (*i-it-tin*, *i-it-te-en*) : Skt. *ita*, Gk. *ἴτε* 'go ye'.

kisan (*ki-iš-ša-an*, *kiš-an*) 'thus' : Lat. *cis* 'on this side', *citer* 'lying near', *citrā* 'on this side, hither', Goth. *himma* 'huic', Lith. *šis*, ChSl. *sb* 'this'.

kwis = Lat. *quis*; *kwit* = Lat. *quid*.

The reduplication vowel is occasionally *i*, although less frequently than in the IE languages; e.g. *kikitaru* (*ki-ik-ki-ta-ru*) = *ketaru* (*ki-it-ta-ru*) 'let him be placed, lie'; *kikistari* (*ki-ik-ki-iš-ta-ri*, *ki-ik-ki-iš-ta-a-ri*) = *kesari* (*ki-ša-ri*) 'becomes'; *mima-* (*mi-im-ma-i*, pret. *mi-im-ma-aš*) 'refuse':^{35a} *titanu-* (*ti-it-ta-nu-uz-zi*, 3 pl. *ti-it-ta-nu-an-zi*) 'cause to stand, place' : IE *stā-* 'stand' [289]. It must not be forgotten, however, that *i* is often written for *e*; perhaps it would be better to read *e* in the first two words above, both of which are rare.

The nom. and acc. s. of *i*-stems often shows *i* corresponding to *i* of the IE languages; e.g. *harkis* (*ḥar-ki-iš*) 'white' : Gk. *ἀργυ-κέραινος* 'with bright lightning', *tuzin* (*tu-uz-zi-in*) 'army', *supis*, *supin* (*šu-up-iš*, *šu-up-pi-in*).

The dat. s. ending of consonant stems is *i*, and it represents IH *i* in case the final syllable of the stem has full grade: e.g. *weteni* (*ú-e-te-ni*) 'in, to the water', *nepesi* (*ne-pi-ši*) 'in, to the sky', *pahweni* (*pa-aḥ-ḥu-e-ni*) 'in, to the fire' [195d].

The primary personal endings *mi*, *si*, *zi*, and *nzi* correspond to IE *mi*, *si*, *ti*, and *nti* [382, 383, 384, 387].

ī

83. IH *ī* becomes Hittite *i*. On the question of quantity, see [49b]. *tiya-* (3 s. *ti-ya-zi*, 1 pl. *ti-ya-u-e-ni*, 3 pl. *ti-an-zi*, *ti-ya-an-zi*, pret.

^{35a} Sommer, AU 39 ff.

ti-ya-at, 1 pl. *ti-ya-u-en*, 3 pl. *ti-i-e-ir*, *ti-e-ir*, imper. 3 pl. *ti-an-du*, part. *ti-an-za*, pl. *ti-ya-an-te-eš*, etc.) beside *tai-* (*da-a-i*, pret. *da-a-iš*) 'set, place' is cognate with Skt. *dhā-* 'place', whence we have perf. 3 s. *dadhau* < IH *dhēi* [367], and aorist forms implying a diphthongal root, *adhūtam*, *dheyam*, *dheyur*, *adhīmahi*, *dhīmahi*, *adhāyi*, *dhāyi*. Of these the reduced grade forms with *i* go directly with Hittite *tiya-*.

tiya- (*ti-i-e-iz-zi*, *ti-ya-iz-zi*, 3 pl. *ti-an-zi*, *ti-ya-an-zi*) 'come' : Skt. *dīyati* 'flies', Gk. *divos* 'whirlpool'(?).

u

84. IH *u* remains in Hittite. (For additional evidence, see [114–116].) For Hittite *u* from pre-IH *a*, see [110].

anturz (*an-dur-za*) 'within' < IH *n-dhur-ts* 'indoors'; cf. Gk. *ἐνθα* 'to the door, out of doors'. For the ending, see [196d].

hukanzi (*ḫu-kán-zi*) 'they conjure' beside *hwekzi* (*ḫu-u-e-ik-zi*; also by analogy *ḫu-uk-zi*) 'conjure, charm, bless, cure by magic' : Skt. *uktas* 'spoken' beside *vakti*, *vivakti* 'speaks'.

nu, sentence connective : Skt. *nu* 'then, therefore, indeed, certainly', Gk. *νν* 'then, therefore', ChSl. *нѡ* 'however'.

pahunaz (abl. *pa-aḫ-ḫu-na-az*) 'from the fire' beside dat. *pahweni* : Gk. *πῦρ*, *πυρός*, Goth. *fōn*, *funins*.³⁶

sunā- (*šu-un-na-a-i*, pret. *šu-un-na-aš*) 'fill' beside *sutati* (*šu-ut-ta-ti*) 'was pressed out', *suwa(e)-* 'press out, fill' [353, 354] : Skt. *sunoti* 'presses out'.³⁷

tuk (*tu-uk*, *tu-ga*), *-tu* 'tipi, te' : Dor. *τῦ* 'te', Goth. *puk* 'te'. The enclitic probably has the original short vowel, but *tuk* may equally well contain IH *ū*.

uskizi (*uš-ki-iz-zi*) 'sees' : Skt. *ucchati* 'shines' < IH *us-sko/e-*.

yukan (*i-ú-kán*, *i-ú-ga-an*) 'yoke' : Skt. *yugam*, Gk. *ζυγόν*, Lat. *iugum*.^{37a}

The nom. and acc. s. of the *u*-stems often shows *u* corresponding to *u* in the IE languages; e. g. *kenu* 'knee' : Lat. *genū*, Gk. *γόνυ*, Skt. *jānu*; *pankus*, *pankun* (*pa-an-ku-uš*, *pa-an-ku-un*, *pa-a-an-ku-un*) 'all, whole' : Skt. *bahus* 'abundant, much', Gk. *παχὺς* 'thick, large', etc.; *tepus* (neut. *te-pu*, *te-e-pu*) 'small' : Skt. *adbhūtas* 'wonderful', *dabhras* 'small'.

The imper. endings of the third person s. *tu* and pl. *ntu* (*ar-nu-ud-du* 'let him bring', *ar-nu-wa-an-du* 'let them bring') correspond to the

³⁶ RHA 1. 80 f.

³⁷ Lang. 7. 168 f.

^{37a} Sommer, AU 164.

Aryan endings; e.g. Skt. *rṇotu*, *rṇwantu* 'let him (them) move, attain, present'.

The Hittite verbs in *nu* correspond morphologically to the Skt. verbs in *nu*, and so their plural forms probably contain original *u*; e.g. *arnu-meni* (*ar-nu-um-me-ni*) 'we bring' : Skt. *rṇumas*.

ū

85. IH *ū* becomes Hittite *u*. On the question of quantity, see [49b].

kurur (*ku-u-ru-ur*, *ku-ru-ur*) 'hostile, hostility' : Skt. *krūras* 'wounded, raw, cruel', Av. *xrūra-* 'bloody, cruel'. For the first vowel of the Hittite word, see [114].

sumanzan (*šu-um-ma-an-za*, acc. *šu-um-ma-an-za-na-an*) 'rope', *suwel* (*šu-ú-e-el*) 'cord, string' : Skt. *syūman* 'band', *syū* 'string, thread', *syūtas* 'sewn', *sūtram* 'thread', Lat. *sūtor* 'shoemaker', *sūbula* 'awl'. For the development of *sy* in Hittite, see [106].

utne (*ud-ne-e*, *ud-ni-e*, *ud-ni*) 'country' : Skt. *ūdhar*, *ūdhnas*, Gk. *oũdap* 'udder', Lat. *ūber* 'breast', *ūber* 'rich, fertile', etc. For the semantic development of the Hittite word, cf. Homer *oũdap* ἀρούρης, Vergil *ūber arvī*, Cicero *ūbertās agrōrum*. The Hittite word has the same form for singular and plural, and probably it was originally a dual, as if we had Lat. *ūbera arvī*.

ə

86. IH *ə* becomes Hittite *a*.³⁸

akwanzi (*a-ku-wa-an-zi*, *a-ku-u-wa-an-zi*, *a-ku-an-zi*) 'they drink' beside *ekuzi* 'he drinks' [302] : Lat. *agua*, Goth. *alva* 'water' beside OIsl. *æger* 'sea'.

apanzi (*ap-pa-an-zi*) 'they take' beside *epzi* 'he takes' [302] : Lat. *apiscor* 'gain, attain' beside *coēpī* 'I began'.

hwantes (*hu-u-wa-an-te-eš*) 'storms, winds' : Gk. *αἶτω* < **fa-v-yw*. 'winnow' beside ἄησι, Skt. *vāti* 'blows', Lat. *ventus*, Goth. *winds*, Welsh *gwynn* 'wind'.³⁹

maklant- (acc. *ma-ak-la-an-ta-an*, pl. *ma-ak-la-an-te-eš*) 'thin, lean' :

³⁸ Hrozný, SH 169 f. Milewski, RO 8. 102 ff., has undertaken to show that *a* becomes *e* sporadically if *e* follows in the next syllable while *e* sporadically changes to *a* before *a* in the next syllable. The forms he adduces are more satisfactorily explained by the theory of reduced vowels (*ə* or *ɐ*), and there are other instances of *a* < *ə* or *ɐ* beside *e* that cannot be explained by vowel assimilation. These are included in the following lists. Cf. fn. 26.

³⁹ Mudge, Lang. 7. 253.

Lat. *macer* 'lean', Gk. *μακρός* 'long', *μακρόν* 'slender' beside Gk. *μήκος* 'length'.

titanu- (*ti-it-ta-nu-uz-zi*, 3 pl. *ti-it-ta-nu-an-zi*) 'cause to stand, place' beside *stapi* 'shuts in, stores away' [143a]: Skt. *sthítas*, Gk. *στατός* beside *tiṣṭhāmi*, *ἵστημι* 'stand'.

Particularly clear evidence for Hittite *a* from IH *ə* is presented by the 2 pl. of the *hi-conjugation* verbs in *a*; e.g. *tateni* (*da-at-te-ni*, *da-at-te-e-ni*) 'you take' < IH *dəte* beside *tumeni* (*tum-me-ni*) 'we take' < IH *dumes* < pre-IH *dəwes* [110]. The full grade stem appears in the 2 s. *tati*, pret. *tata* < IH *dōtha*. Similarly *tarnaten* (*tar-na-at-tin*, *tar-na-at-te-en*) 'you put in, inserted' < IH *trnəte* beside *tarnumen* (*tar-nu-mi-en*) 'we put in' < IH *trnumes* < pre-IH *trnəwes*. The full grade of the suffix appears in the 2 s. *tarnati* < IH *trnātha*.

Similarly from *wetezi* (*ú-e-te-iz-zi*) 'builds' < IH *we-dhēti* 'sets hither, puts in place' the pret. 2 pl. is *wetaten* (*ú-e-ta-at-te-en*) < IH *we-dhəte*, beside 1 pl. *wetumen* (*ú-e-tum-me-en*) < IH *we-dhume*.

Probably we should assume IH *ə* as the plural ending of neuter *i*-stems, *u*-stems, and consonant stems; e.g. *mekaya* (*me-iq-qa-ya*) : *mekis* 'great', *parkuwa* (*pár-ku-wa*) : *parkus* 'pure', *humanta* (*hu-u-ma-an-ta*, *hu-u-ma-an-da*) : *humanz* 'all' [201].

87. In pre-IH *əw* became *um*, and this *um* survives in Hittite. Two examples were given in the last paragraph, and a fuller treatment will be found in [110].⁴⁰

b

88. IH *ə* becomes Hittite *a*.⁴¹ Since IH syllabic nasals and liquids yield Hittite *an*, *ar*, *al*, it is generally possible to identify IH *ən*, *er*, *əl* only in case a vowel follows [96–100].

makes- (pret. *ma-ak-ki-eš-ta*, part. *ma-ak-ki-iš-ša-an*) 'become great' beside *mekis* 'great' : Lat. *magnus* 'great', *magis* 'more' beside Gk. *μέγας* 'great'.

malitus (neut. *ma-li-id-du*) beside *melitus* 'sweet' from *melit* 'honey'.⁴² *septamas* (dat. *ši-ip-ta-mi-ya*) : Skt. *saptamas*, Lat. *septimus* 'seventh' < IH *septəmos*.

atweni (*a-tu-e-ni*) 'we eat', *azteni* (*az-za-aš-te-ni*) 'you eat', *atanzi* (*a-da-an-zi*, *a-ta-a-an-zi*) 'they eat', *atanz* (*a-da-an-za*) 'eaten' beside *etmi* (*e-it-mi*) 'I eat', *ezt* (*e-iz-ta*) 'he ate' : Lat. *dēns*, Skt. *dan* 'tooth' <

⁴⁰ Otherwise Cuny, RHA 1. 219 f.

⁴¹ See [86, fn. 38].

⁴² Ehelolf, OLZ 36. 2 f.

IE *dent-*, Gk. *ὀδὸς* 'tooth' < IE **dōnt-* beside Lat. *edo* 'I eat', Gk. *ἐδομαι* 'I shall eat', etc. Hittite shows only full grade and reduced grade forms except that *eter* (*e-te-ir*) 'they ate' is probably an original perfect with lengthened grade (= Lat. *ēdēre*). IE has analogical full grade forms in the finite verb (e.g. Lat. *edunt*), but the original participle, whose derived meaning separates it from the system, shows reduced or zero grade of the root.

asanzi (*a-ša-an-zi*) 'they are' beside *eszi* (*e-eš-zi*) 'he is' : IE *sénti* 'they are' beside IE *ésti* 'he is'. In the preterit the analogy of the 3 pl. *eser* (*e-šir, e-še-ir*), originally a perfect (= Skt. *āsur*) [412], has introduced *e* into 1 pl. *eswen* (*e-šu-u-en*) and 2 pl. *esten* (*e-eš-tin*). I cannot quote pres. 1 pl. and 2 pl., but they are probably **asweni* and **asteni*.

wasanzi (*wa-aš-ša-an-zi*) 'they clothe', imper. 3 pl. *wasantu* (*wa-aš-ša-an-du*), part. *wasanz* (*wa-aš-ša-an-za*) beside imper. 2 pl. *westen* (*ú-e-eš-tin*), midd. 3 pl. *wesanta* (*ú-e-eš-ša-an-ta*) : IE *wes-* 'clothe'. IE seems to have no forms that must contain the reduced grade, and with the zero grade only two middle participles each occurring once in RV, *uṣāṇas* and *uṣamāṇas*.

Since the suffix *neu* usually follows a weak form of the root in IE it is reasonable to derive Hitt. *laknu-* (pret. *la-ak-nu-ut*) 'win over' an opponent (beside *saleka* 'lies with') from IH *lōgh-néu-*.

spariya- (*iš-pár-ri-ya-az-zi, iš-pár-ri-iz-zi*) 'spread' : Gk. *σπείρω, ἐσπάρην*, probably comes from IH *sp̥rio/e-*, although we may perhaps read *sparya-* and derive from IH *sp̥ryo/e-* [76], in which case the Hittite word corresponds precisely with the Gk.

nata (*na-at-ta*) 'not' : IE *ne* 'not', probably comes from IH *n̥-toi* [232]; cf. Gk. *οὐ τοι*.

The Short Diphthongs Ending in *i*

89. All short *i*-diphthongs become Hittite *e* (often written *i* [40a]). On account of the differences retained by certain of the IE languages, it will be convenient to divide the material into three classes.

ai, ei, vi.

90. One or another of these diphthongs is to be assumed as the basis of final *e* of the neuter plural of the pronominal declension; *-e (-i)* 'ea', *ne* 'et ea', *se* (*še*) 'ea', *ke* (*ki-e, ki-i*) 'haec', *ape* (*a-pi-e*) 'ea', *kwe* (*ku-e, ku-i-e*) 'quae', *kwe-ki* (*ku-e-ik-ki*), *kwe-ka* (*ku-e-qa*) 'quaequam' : Skt. *te* 'ea', *ke* 'quae', Lat. *haec, quae* (neut. pl.) [265].

The medial ending *te*, as in *lukate* (usually *lu-uk-kat-ti*, twice *lu-*

[uk-]kat-te) 'day dawns', is certainly to be identified with the Gk. ending *rai* and Skt. *te* [424].

kate- (*kat-ti-ti*, *kat-ti-eš-ši*), the variant of *kata* 'with' that is combined with the possessive enclitics, must go with Gk. *κατά* as *kata* goes with *κατά*. In IE and probably in IH original anteclassical *vi* had become *i*, and so we must assume, certainly for Gk. and probably for Hittite, a spread of the pausa form.⁴³ See [97, 195e].

ei

91. *ehu* (*e-ḫu*) 'up! come!' appears to be IH *ei*, whence Lat. *i* 'go', with the imperative ending *hu* which appears in the middle verb with a following *t*; e.g. *eshut* from *es-* 'sit' [433].

nehī (*ne-iḫ-ḫi*) 'I lead, turn, send' beside 3 s. *nai* (*na-a-i*) : Skt. *ninaya* 'I led' beside 3 s. *nināya* [103a].

kemanz (*gi-im-ma-an-za*, acc. *ki-im-ma-an-tin*) 'winter' : Skt. *hemantas*, Gk. *χειμα* 'winter'. The word and its derivatives are always written with *i* instead of *e*, and so we may read *kimanz* and compare Skt. *himas* 'cold, frost, snow', Gk. *δύσχιμος* 'wintry'; but Skt. *hemantas* is the only IE word that has the dental extension exhibited by Hittite.

keta (*ki-it-ta*), *ketari* (*ki-it-ta-ri*) 'lies' : Skt. *śete*, Gk. *καίται* 'lies'. Here again we have constant *i* in the radical syllable; but the IE languages have from this verb no present forms of the root class with weak grade.

kesari (*ki-ša-ri*, *ki-i-ša-ri*), *kesa* (*ki-i-ša*, *ki-ša*) 'becomes' is derived from *ke-* 'lie' by suffixal *sa*, and therefore corresponds with IE thematic s-aorists [317, 376]; there is in fact an aor. subj. 3 pl. *śeṣan* in RV. As in *ke-* 'lie', *i* is always written in the radical syllable.

temi (*te-e-mi*) 'I say', *tezi* (*te-e-iz-zi*, *te-iz-zi*), 2 pl. *teteni* (*te-e-te-ni*), pret. *tet* (*te-e-it*, *te-it*), imper. 2 pl. *teten* (*te-it-te-en*) 'say' : Skt. *dīdēti* 'shines'; Gk. *δαίται* 'seems', Lat. *dīco* 'say'.

tekusami (*te-ik-ku-uš-ša-mi*) 'I show', pret. *tekuset* (*te-ik-ku-uš-ši-e-it*) : Skt. *adīkṣat*, Gk. *ἔδειξε* 'he showed'. The Hittite verb agrees with the Gk. aorist in vocalism, and with the Skt. aorist in being thematic [317]. For *ku* instead of *k*, see [114].

The dat. s. of the *a*-declension ends in *e*, which is usually written *i*, but occasionally *e* (*eš-ḫé* 'ero', *pi-e-te* 'loco'). The IE analogue is to be found in the loc. s. of *o*-stems, which ends either in *ei* or in *oi*.

The dat. s. of consonant stems ends in *i*, which clearly represents IH *i*

⁴³ TAPA 62. 23 f. Another possibility is to separate Hittite *kate-* from Gk. *κατά* and derive it from IH *kmte-*.

in case the preceding syllable has full grade [195d], but when the preceding syllable has zero grade it is natural to compare the IE dative in *ei*; e.g. *hatulani* (*ḥa-at-tu-la-an-ni*) beside *hatulatar* (*ḥa-ad-du-la-a-tar*) 'health' shows *ni* from *t_{ni}*, and this matches the Skt. dat. *nāmne* 'nomini' rather than the loc. *nāmani* 'in nomine'. Nevertheless the nearly constant writing with *i* suggests that this vowel may have been generalized in the consonant stems.

oi

92. IH *oi* is most clearly represented by a number of enclitic pronouns. *-se* (*-ši*, *-še*) 'ei, sibi' corresponds with the IE enclitic seen in Av. *hē*, *šē*, OP *šaiy*, and Homeric *oi*. In the first and second persons the first Arzawa letter (VBoT 1. 3-10) presents *-me* (*-mi*) 'mihi' and *-te* (*-ti*) 'tibi', which correspond with Skt. *me*, *te*, and Gk. *μοί*, *τοί*. From these enclitic pronouns were formed the possessives *-mes* (*-mi-iš*, *-me-iš*) 'my', *-tes* (acc. *-ti-in*, dat. *-ti*) 'your', *-ses* (*ši-e-eš*), 'eius, suus', whose genitives s., *-mas*, *-tas*, *-sas*, show the regular development from **moy-os* > **mayas* with loss of *y* between like vowels [107].

For *-ta* < IH *-toi* (?), see [232].

The Short Diphthongs Ending in *u*

93. All IH short *u*-diphthongs become Hittite *u*. On the possibility that *u* of this origin was pronounced [o], see [42d]. On the change of IH *ow* before a vowel to Hittite *uw*, see [80].

au, *əu*

93a. *huhas* (*ḥu-uḥ-ḥa-aš*) : Lat. *avus* 'grandfather'.

u- 'hither', e.g. *unai* (*un-na-i*) 'leads, drives hither' beside *nai* 'leads, drives', *utai* (*ú-da-i*, *ú-da-a-i*) 'brings' beside *tai* 'takes', is cognate with Lat. *au-* 'away'. An extended form of this word is the adverb *awan*, which is used to strengthen *arha* 'away', *kata* 'down', and *sara* 'up'; it is cognate with Skt., Av., OP. *ava* 'down, from, to'.

uhi (*u-uḥ-ḥi*) 'I see' beside *auti* (*a-ut-ti*) 'you see', *auszi* (*a-uš-zi*) 'he sees' parallels the conjugation of *nehi* 'I lead' beside *naiti* and *nai* [103a, 362], except that *au-* shows *mi*-conjugation forms in 3 s. We are therefore forced to assume an original short diphthong in the 1 s.; it is probably *au*, in view of the related Lat. *aurōra*, etc.

eu

93b. *lukzi* (*lu-uk-zi*)⁴⁴ 'lights, kindles' : Skt. *rocate* 'shines', Gk. *λευκός* 'bright, light'.

upzi (*u-up-zi*) (the sun) 'rises' : Goth. *iup* 'upwards', Skt. *upa* 'up, hither', Gk. *ὑπό* 'under'. IE possesses only adverbs from this root, and only Goth. *iup* testifies to the full grade; but numerous analogies show that a root-class singular like *upzi* must be assigned that grade.

kuskuszi (*ku-uš-ku-uš-zi*) 'mixes' : OIsl. *giósa*, *gaus* 'break forth, pour forth', Eng. *gush*, Gk. *χέω* 'pour'. For related Hittite words, see [116].

The sing. act. of verbs in *nu* must contain IH *neu*; e.g. *arnuzi* (*ar-nu-zi*, *ar-nu-uz-zi*) 'brings' : Skt. *rṇoti* 'moves, attains, presents'.

kanut (*ga-nu-ut*), instr. s. of *kenu* 'knee', must come from IH *gñéut*; cf. Vedic *madhoṣ*, gen. of *madhu* 'honey', Lat. *cornūs*, gen. of *cornū* 'horn' [197c].

The Long Diphthongs Ending in *i*

94. IH *āi*, *ēi*, and *ōi* become Hittite *ai*. For the development of pre-Hittite *ēy* before a vowel, see [78].

āi

94a. *malai* (*ma-al-la-i*, 3 pl. *ma-al-la-an-zi*, imper. 2 s. *ma-a-al-la*) 'grinds, breaks'⁴⁵ : Skt. *mlāti* 'fades', *mṛṇāti* 'crushes', Gk. *μύλη*, Lat. *mola* 'mill', Gk. *βλᾶ'ξ* 'stupid', *βληχρός* 'faint, gentle' [351].

memai (*me-ma-a-i*, *me-im-ma-i*) 'says' : Dor. *μῆμνᾶμαι* 'remember' beside *memahi* 'I say' : Lat. *meminī* [351].

ēi

94b. *nai* (*na-a-i*) 'leads, turns, sends' : Skt. *nināya* 'led' beside *nehi* 'I lead' : Skt. *ninaya* [91, 103a, 361].

tai (*da-a-i*) 'places' : Skt. *dadhau* 'he placed', Gk. *τίθημι*, ChSl. *děja*, *dějati* 'lay', [83, 367].

shai (*iš-ḥa-a-i*) 'binds, levies (troops) upon' : Skt. *siṣāya* 'he bound', Lett. *sēnu*, *sēt*, *sēju* 'bind' [360].⁴⁶

mai (*ma-a-i*) 'prosperes, is ripe' : Ion. *μελίχιος*, Cret. *μηλίχιος* 'gentle, gracious', Lat. *mītis* 'soft, gentle', Skt. *mayas* 'comfort, pleasure', etc. [361].

⁴⁴ The more common *lu-uk-ki-iz-zi* is possibly a variant spelling to secure double writing of the stop, but more probably it is the equivalent thematic verb.

⁴⁵ Sommer, AU 188.

⁴⁶ Kretschmer, KLf 1. 10; Kurylowicz, Symb. Gramm. 101.

pai (*pa-a-i*) 'gives' < IH *bhe-ēi*, in which the verb is perfect of IH *ei*- 'go, cause to go' [361]. Cf. Toch. *ai*- 'give'.⁴⁷

nais (*na-a-iš*, *na-iš*, *na-i-iš*) 'he led, turned, sent' : Skt. *anaiṣīt*, *naiṣ*, *nait* 'led' [320, 409].

tais (*da-a-iš*, *da-iš*) 'he placed' : Skt. aor. *adhītām*, *dheyām*, *dheyur*, *adhīmahi*, *dhīmahi*, *dhīmahe*, *adhāyi*, *dhāyi* [320, 409].

paizi (*pa-iz-zi*) 'he goes' < IH *bhe-eiti*: Skt. *eti*, Gk. *εῖσι*, Lat. *it* 'goes'.

The dat. s. of *i*-stems sometimes ends in *ai*, e.g. *lenkai* (*li-in-ga-i*, *li-en-ga-i*) from *lenkais* 'oath', *supai* (*šu-up-pa-i*) from *supis* 'pure', *salai* (*šal-la-i*) from *salis* 'great'. This must come from the original *ēi* (possibly also *ōi*) implied by Skt. loc. s. *agnau* from *agniṣ* 'fire', etc. [195b].

The nom. and acc. s. of *i*-stems sometimes end in *ais*, *ain*; e.g. *lenkain* (*li-in-ga-in*) 'oath', *sakais* (*ša-ga-a-iš*) 'omen', *zahais* (*za-aḥ-ḥa-iš*), *zahain* (*za-aḥ-ḥa-in*, *za-aḥ-ḥa-en*) 'fight'. These forms must contain lengthened grade or lengthened *ō*-grade of the stem vowel; cf. Skt. *sakhā*, *sakhāyam* 'friend', Gk. *ῥῥῶ*, *ῥῥοῖ* 'sound', [191b].

ōi

94c. The occasional datives in *ai* from *a*-stems, as *lutai* (*lu-ut-ta-i*) 'to, in the window', contain IH *ōi*; cf. Gk. *ῥῥῶ*, Av. *yasnāi* [195a].

tai (*da-a-i*) 'takes' : Skt. *dadau* 'he gave', Gk. *δίδωμι* 'give'. Quite possibly IH had perf. 3 s. *dōu* rather than *dōi*, but if so the analogical change to an *i*-diphthong belongs somewhere in the pre-Hittite period, and whether the immediate result was **dōi* or **dāi* depends upon the relative chronology of the changes involved [364, 369].

The Long Diphthongs Ending in *u*

95. IH *āu*, *ēu*, and *ōu* become Hittite *au*. Evidence is much more scanty than for the long *i*-diphthongs, but there is enough to indicate a parallel development.

au(s)- (2 s. *a-ut-ti*, 3 s. *a-uš-zi*, 1 pl. *a-ú-me-ni*, *a-ú-um-me-ni*, 2 pl. *a-ut-te-ni*, pret. 2, 3 s. *a-uš-ta*, 1 pl. *a-ú-me-en*, imper. 2 s. *a-ú*, 3 s. *a-uš-du*) 'see' corresponds in large measure with the conjugation of the *hi*-conjugation verbs from bases in original *ei* or *ēi* (*nai*, *tai* 'places', etc.). This fact might suggest IH *ēu*(s)-, but the etymological connection with Lat. *aurōra*, Att. *ἥως* Hom. *ῥῥῶς* Dor. *ῥῥῶς* 'dawn' requires IH *āu*(s)-.

maus- (3 s. *ma-uš-zi*, pret. 2 s. *ma-uš-ta*, midd. pret. 3 s. *ma-uš-ta-at*)

⁴⁷ Pedersen, Group. 42; Friedrich, Vert. 2. 146; Sturtevant, Lang. 8. 121 f.

'fall' is conjugated similarly as far as our information goes. It is possibly connected with Lat. *moveo* 'move', Lith. *mąju*, *mąti* 'draw up', Gk. ἀμεύσασθαι 'surpass, outstrip', etc., in which case its diphthong comes from IH *ēu*.

There are two nouns with stem in *au*; *harnaus* (nom. *ḥar-na-a-uš*, acc. *ḥar-na-a-ú*, dat. *ḥar-na-a-ú*) 'birth chair', and *harkanau* (nom. *ḥar-ga-na-ú*) of unknown meaning. I cannot suggest a plausible etymology for either word.⁴⁸ The diphthong is probably from IH *ēu* although *ōu* is not excluded.

Syllabic *n*.⁴⁹

96. IH syllabic *n* becomes Hittite *an*. Since IH *ɪn* yields Hittite *an*, we can distinguish between the two on the basis of Hittite only (1) if a vowel follows, when we must assume IH *ɪn*, or (2) if the full grade vowel and Hittite *a* stand on opposite sides of *n*, in which case we must assume IH syllabic *n*. Of the words listed below only *anzas* and *ank* necessarily contain IH syllabic *n*. The others may severally be derived from IH *ɪn*; but it is unlikely that all of them have that origin.

anzas (nom., acc., dat. *an-za-a-aš*, gen. *an-zi-el*, abl. *an-zi-ta-az*) 'we, us' is IH *ns* (Goth. *uns*) : *nos* (Skt. *nas*) with case endings of Hittite origin [229]. For the change of *ns* to *nz*, see [133].

anku (*an-ku*) 'several times', *-anki*, multiplicative suffix, as in 20-*an-ki* 'twenty times' : *mekis* 'much', pl. 'many'. At some time in the pre-IH period we must assume **mk-*, but Hittite *an* instead of *a* [97] may indicate an early assimilation of the nasal to the following stop.

anta (*an-da*) : OLat. *endo* 'in, within'.

anturz (*an-dur-za*) 'within' < IH *n-dhur-ts* 'indoors', zero grade of IH *en* 'in' and the ablative of the noun for 'door' : Gk. *θύρα* 'door', *θύραζε* 'to the doors, out of doors'.

eshant (inst. *e-eš-ḥa-an-ta*) from *eshar* 'blood'.

kwaske- (pret. *ku-wa-aš-ki-it*), iterative-durative from *kwen-* 'strike' [335]. For the loss of *n* before *s*, see [134].

laman (*la-a-ma-an*) : Skt. *nāma*, Gk. *ὄνομα*, Lat. *nōmen* 'name'.

pankus (*pa-an-ku-uš*) 'all, whole; populace' : Skt. *bahuṣ* 'abundant, much', Gk. *παχύς* 'thick'.

stamant (inst. *iš-ta-ma-an-ta*) from *stamar* 'ear'.

The Hittite 3 pl. endings *anzi*, *anta*, *antari* come in part from IH *onti*,

⁴⁸ The initial sign of both words may be read *ḥur* as well as *ḥar*.

⁴⁹ Since the velar nasal is the result of assimilation, and since in Hittite it is written in the same way as dental *n*, it is here given no separate treatment.

etc., of the thematic verbs, and in part from zero grade IH *nti*, etc. after consonants. A clear case of IH *nto(r)* is presented by Hittite *esanta* (*e-ša-an-da*, *e-ša-an-ta*), *esantari* (*e-ša-an-da-ri*, *e-ša-an-ta-ri*): Skt. *āsate*, Gk. *ἥραι* 'they sit'.

Syllabic *m*

97. IH syllabic *m* appears in several words as *a*. It may be that the change was first to *am*, with subsequent loss of the consonant before certain sounds. If so one may trace final *an* in the acc. s. of consonant stems to IH syllabic *m* (cf. Gk. *πόδα*, *πατέρα*, etc.); but it is equally possible to assume IH *ɪm* or to assume that pre-Hittite *a* became *an* by the analogy of the vowel stems (cf. Skt. *pādam*, *pītarām*, etc., Cyprian *λυατῆραν*, Thess. *κίοναν* etc.) [192].

kata (*kat-ta*), *katan* (*kat-ta-an*), *kate-* (*kat-ti-mi*, *kat-ti-eš-ši*) 'with, together, down' : Gk. *κατά*, *καταί* 'along, according to, down', Goth. *handus* 'hand'. IH *komt-* 'hand' had case forms with zero-grade of the root (IH *kmt-*), which had developed in the unaccented adverbial use of the stem. Hittite *kata* and *katan*, as well as Gk. *κατά*, are accusatives; *kata* and *katan* may be different sandhi forms, or *katan* may contain analogical *n* from the vowel stems. Hittite *kate-* and Gk. *καταί* are from the IH dat. [90, 195e].

sa- appears in Hittite *salek-* (*ša-li-i-ga*) 'lie with', *sawetesz* (*ša-ú-i-ti-iš-za*) 'of the same year', *sakwis* (*ša-ku-iš*) 'spring, well', *sakunesk-* (2 s. *ša-ku-ni-eš-ki-ši*) 'gush'. It corresponds to IE *sm-* 'together, with' in Gk. *ἄλοχος* 'wife', *ἀδελφός* 'brother', *ἀσπός* 'together, in a body', etc.

taswanz (*ta-aš-wa-an-za*) 'blind' < IH *tms-went-* [177] : Skt. *tamras* 'obscuring' (RV), *tamas*, *tamirā*, Lat. *tenebrae* 'darkness'. Misinterpretation of *taswanz* as the participle of a denominative verb induced an adjective **taswas* 'blind', whence *taswah-* (*da-šu-wa-aḫ-ḫi*, *ta-šu-wa-aḫ-ḫi*) 'make blind'.

Syllabic *r*

98. IH syllabic *r* remains in Hittite. It is usually written *ar*, and therefore it is often possible to assume IH *ɪr* instead. In some words variant orthographies guarantee the presence of syllabic *r* [59].

Hittite *ar* before a consonant may come from IH *er*, and so we must often decide between full grade and weak grade on the basis of cognates in other languages or on the basis of the normal ablaut in the grammatical category to which the Hittite word belongs [76].

hwrtā- (1 s. *ḫu-u-wa-ar-daḫ-ḫi*, 3 s. *ḫur-da-i*, pret. 1 s. *ḫur-ta-aḫ-ḫu-un*,

3 s. *ḥu-wa-ar-ta-aš*, *ḥur-ta-aš*, iterative-durative *ḥur-za-ki-iz-zi*, *ḥur-za-ki-it*, *ḥu-u-wa-ar-za-ki-u-wa-ar* 'curse', *ḥurtais* (*ḥur-ta-a-iš*) 'a curse' : Lat. *verbum*, Goth. *waurd* 'word', Lith. *vardas* 'name'. For the broad transliteration, see [59].

kartis (gen. *kar-di-aš*, *kar-di-ya-aš*, dat. *kar-di*, *ŠĀ-ta*) 'heart' : Ion. *καρδίη*, Att. *καρδία*, Lat. *cor* 'heart'.⁵⁰

parkus (*pár-ku-uš*) 'high' : Arm. *barjr* 'high',⁵¹ Skt. *bṛhant-* 'high, great'. *tarnai* (*tar-na-a-i*) 'puts in' : Gk. *τερπαίω* 'pierce'.

The verbal suffixes *ske/a* [334, 335] and *nu* [326, 327] regularly have zero grade of the root; e.g. *arskezi* (*a-ar-aš-ki-iz-zi*) 'comes' : Skt. *ṛcchati* 'comes to, attains'; *hahrsk-* (*ḥa-aḥ-ri-iš-ki-iz-zi*, pret. *ḥa-aḥ-ḥar-aš-ki-it*) 'be corrupted' (etymology unknown); *paparsk-* (3 pl. *pa-ap-pár-aš-kán-zi*) beside *papars-* 'sprinkle' : Skt. *prṣat*, *prṣatam* 'drop of water'; *arnuzi* (*ar-nu-uz-zi*) 'brings' : Skt. *ṛnoti* 'moves, attains', Av. *ərənaoiti* 'grants'; *warnuzi* (*wa-ar-nu-uz-zi*) 'causes to burn' : Skt. *ghṛṇoti* 'shines, burns'.

The nom.-acc. s. of *r/n*-stems normally ends in *ar*, which may represent either IH *ōr* (cf. *ὄωρ*) or IH syllabic *r*. In the following words syllabic *r* is probable; *eshar* (*e-eš-ḥar*) 'blood' : Skt. *asṛk*, Gk. *εἶα* 'blood'; *kutar* (*ku-ut-tar*, dat. *ku-ut-ta-ni*) 'neck, strength' : Lat. *guttur* 'neck'.

99. The pre-IE change of *wr* to *ru* before a consonant⁵² must be pushed back into the pre-IH period on account of Hittite *kutrus* (gen. *ku-ut-ru-aš*, pl. *ku-ut-ru-e-eš*) 'witness' : Lat. *quadrupes*, *quadruplus*, etc., Gk. *τροφέλεια* 'helmet', Av. *čadruš* 'four times'. Lat. *quadru-* and Av. *čadruš* imply IH *kwttru-*; Gk. *τροφέλεια* and Hittite *kutrus* imply IH *kutru-* and *kutreu-* respectively, whereas other IE forms imply IH *kwtwer-*, *kwetwer-*, etc. For the semantic development of the Hittite word, cf. Lat. *testis* < **tristo-* 'third' (or 'three-stander'), and Russian *trétij* 'third' and also 'umpire, judge'.⁵³

Syllabic *l*

100. IH syllabic *l* remains in Hittite. The evidence is extremely scanty, but it serves to confirm the inference that would be drawn in any case from the development of IH syllabic *r*.

palhis (acc. *pal-ḫi-i-in*, neut. *pal-ḫi*) 'broad', *palhan* (nom.-acc. *pal-*

⁵⁰ The Hittite word may come equally well from IH *kerdi-* [76]; but Gk. requires a weak form.

⁵¹ Meillet, MSL 23. 328.

⁵² Brugmann, Grund. 1². 260. *ḥurt-* 'curse' indicates that the change did not occur after *h*.

⁵³ Carruthers, Lang. 9. 151f.

ha-an, *pal-ha*), a kind of dish : Skt. *prthuṣ*, Av. *pərəθuš*, Gk. *πλατύς* 'broad'.⁵⁴

umə, *urə*, *ulə*

101. In the reduced grade of heavy dissyllabic bases with medial nasal or liquid Gk. shows three different forms; e.g. *θάνατος*, *θυνητός*, *τέθναμεν*; *ταλάσσαι*, *τλήναι*, *τέτλαμεν*. Hittite shows the first type, in which both reduced vowels are preserved; and also *ar*, *al*, which may correspond to the second or possibly to the third. I have not found *am* or *an* where IH *umə* or *urə* must be assumed.

tamas- (*ta-ma-aš-zi*, *da-ma-aš-zi*, pret. *ta-ma-aš-ta*) 'press, oppress, shut in' : Gk. *ἐδάμασσα* 'I worked (metal), I subdued'.

talukaes (pl. *da-lu-ga-e-eš*) 'long' : Gk. *δολιχός*, Skt. *dīrghas* 'long'. I cannot explain the second vowel of the Hittite word or either vowel of the Gk., but it seems probable that the Hittite word belongs here.

parkwis (*pār-ku-iš*) 'pure' : Skt. *bhrājate* 'shines', Goth. *bairhts* 'bright', etc.; base *bherēgw-* [115].

arsaniya- (pret. *ar-ša-ni-ya-at*, 3 pl. *ar-ša-ni-i-e-ir*) 'envy', *arsanatalas* (pl. *ar-ša-na-at-ta-lu-uš*, *ar-ša-na-tal-la-aš*) 'envier'⁵⁵: Skt. *irasyati* 'envies', *īrṣyā* 'envy', Av. *arəšyant-* 'envious', OE. *eorsian*, *yrisian* 'wish ill'; base *erāzs-*.

walh- (*wa-al-aḥ-zi*, 3 pl. *wa-al-ha-an-zi*, pret. 1 s. *wa-al-aḥ-ḥu-un*, *wa-al-ḥu-u-un*) 'strike', *akukalet* (inst. *a-ku-ga-al-li-it*) 'water-pourer, pitcher' : Skt. *galati* 'drips' (part. *galitas*, caus. *gālayati* 'pours'), *jalam* 'water', Gk. *βάλλω* 'throw' (cf. *βλητός*, *βλήμα* etc.); base *gwelē(i)-*. The *h* of *walh-* is a suffix [348]. In *akukalet* the *w* was lost by dissimilation before the change of *gw* to *w* [115].

Ablaut

102. The Hittite simplification of the vowel system obliterated many ablaut distinctions. Thus *spanti* (*ši-pa-an-ti*) 'pours a libation' comes from IH *sponde* while the iterative-durative *spanzkezi* (*ši-pa-an-za-ki-iz-zi*) probably comes from IH *spntsketi*; but in Hittite the radical vowels are alike. IH *ertori*, *ore*, and *rneuti* (base *er*-move') yield Hittite *artari*, *ari*, and *arnuzi* respectively; IH ablaut would have vanished completely from this common group of words if it were not for pl.

⁵⁴ Walde-Pokorny, 2.99, assign Gk. *πλατύς*, etc. to an extended base. If that is the truth, the extended base was *peleht-* or the like; but *tu* may be a suffix.

⁵⁵ The verb is once preceded by the "glossenkeil", and so it may be a loan from Luwian [10, 19a].

ertenī, *erwen*, etc. < IH *ērtē(ne)*, etc. IH *eu*, *ou*, *ū*, and *u* all yield Hittite *u*, and so vowel alternation in this series is possible only (1) in the lengthened grades (*ēu*, *ōu* > *au*) or (2) when a vowel follows (*ēw* and *ōw* > *aw*, *ew* remains, *ow* > *uw*, *u* and *w* remain).

In addition to the word groups that have lost ablaut differences in consequence of phonetic law, there are many instances of analogical leveling; e.g. *lenkzi* (*li-in-ga-zi*, *li-ik-zi*) 'swears' : *lenkanzi* (*li-in-kán-zi*); *seszi* (*še-eš-zi*) 'sleeps' : *sesanzi* (*še-e-ša-an-zi*); *tezi* (*te-iz-zi*) 'says' : *teteni* (*te-e-te-ni*) 'you say'; *wekzi* (*ú-e-ik-zi*) 'asks' : *wekanzi* (*ú-e-ik-kán-zi*); *sanhzi* (*ša-an-aḥ-zi*) 'petit' : *sanhanzi* (*ša-an-ḥa-an-zi*); *walhzi* (*wa-al-aḥ-zi*, *wa-la-aḥ-zi*) 'beats' : *walhanzi* (*wa-al-ḥa-an-zi*).

The following table illustrates the most important ablaut variations preserved in Hittite. The part of each word in which the ablaut appears is printed in *italics*. Further information about these words may be found with the help of the index.

Lengthened Grade <i>ē</i>	Normal Grade <i>e</i>	O-grade <i>o</i>	Reduced Grade <i>ṭ</i>	Zero Grade —
<i>eser</i> 'be'	<i>eszi</i>		<i>asanzi</i>	
<i>eter</i> 'eat'	<i>etmi</i>		<i>atanzi</i>	
	<i>peskezi</i> 'give'	<i>peskanzi</i>		
<i>sekwēni</i> 'know'		<i>saki</i>		
	<i>tekan</i> 'earth'		<i>taknas</i>	
<i>ēi</i>	<i>ei</i>	<i>oi</i>	<i>ī</i>	<i>i</i>
<i>supai</i> } (<i>i-</i>)	<i>halket</i>			<i>supis</i>
<i>supaya</i> } stem)	<i>ehu</i> 'come'			<i>it</i> , <i>iten</i>
<i>nai</i> , <i>nais</i> 'lead'	<i>neyanzi</i> , nest			
<i>ēu</i>	<i>eu</i>	<i>ou</i>	<i>ū</i>	<i>u</i>
<i>harnau</i> (<i>u-</i>)	} <i>kanut</i>			<i>asus</i>
stem)				
<i>pankawi</i> (")				
<i>maust</i> 'fall'				<i>musanz</i>
	<i>arnuzi</i> 'bring'			<i>arnwanzi</i>
		<i>suwaezi</i> 'press out'		<i>sunai</i> 'fill'

<i>ēn</i>	<i>en</i>	<i>on</i>	<i>ɔn</i>	<i>n</i>
	<i>eni</i> 'is'	<i>anis</i> 'ille'		
	<i>kenu</i> 'knee'		<i>kanut</i>	
	<i>kwenzi</i> 'strike'			<i>kwaskezi</i> , <i>kunanzi</i> <i>wetnas</i>
	<i>weteni</i> 'water'			
	- <i>weni</i> (1 pl. ending)	- <i>wani</i>		
	- <i>teni</i> (2 pl. ending)	- <i>tani</i>		
	- <i>enzi</i> (3 pl. ending)	- <i>anzi</i>		- <i>anzi</i>
<i>ēr</i>	<i>er</i>	<i>or</i>	<i>ɔr</i>	<i>r</i>
<i>erwen</i> 'stand, move'	<i>artari</i> (?)	<i>ari</i>		<i>arnuzi</i>
<i>wē</i>	<i>we</i>	<i>wo</i>	<i>wɔ</i>	<i>u</i>
	<i>kwerzi</i> 'cut'			<i>kuranzi</i> <i>hukanzi</i>
	<i>hwekzi</i> 'con- jure'			<i>huskezi</i> 'await'
	<i>hweszi</i> 'live'			
	<i>wekzi</i> 'ask'		<i>wakezi</i>	
	<i>westen</i> 'clothe'		<i>wasanzi</i>	<i>usiyanzi</i> <i>pahunaz</i> <i>usniyezi</i> 'sell'
	<i>pahweni</i> 'fire'	<i>wasi</i> 'buy'		
<i>mē</i>	<i>me</i>	<i>mo</i>	<i>mɔ</i>	<i>m</i>
	<i>mekis</i> 'great'		<i>makeszi</i>	- <i>anki</i> (numer- al suffix)
<i>nē</i>	<i>ne</i>	<i>no</i>	<i>nɔ</i>	<i>n</i>
		<i>nas</i> 'us'		<i>anzas</i>
<i>rē</i>	<i>re</i>	<i>ro</i>	<i>rɔ</i>	<i>r</i>
<i>kreps</i> , <i>kreper</i> 'devour'		<i>krapi</i>		
<i>lē</i>	<i>le</i>	<i>lo</i>	<i>lɔ</i>	<i>l</i>
	<i>salekzi</i> 'lie'(?)	<i>laki</i>	<i>laknuzi</i>	

	\bar{e}	\bar{o}	\bar{a}	—
	ekuzi 'drink'		akwanzi	
	epzi 'take'		apanzi	
	eszi 'set, sit'		asanzi	
	yezi 'make'			yenzi
	\bar{o}		\bar{a}	
	tati 'thou		(tumeni)	
	takest'		tateni, taskezi	
$\bar{a}u$ (base <i>awe</i>)	$\overbrace{au \quad we}$	wo	$w\bar{a}$	u
auszi 'see'				uskezi
	$u-$ 'hither' $we-$	$wa-$		

Vowel Shortening before pre-IH *h*

103a. In pre-IH a long vowel or a long diphthong was shortened before *h*. Since we can rarely distinguish between long and short vowels in Hittite, the part of the law that refers to original monophthongs rests upon IE evidence, and has no importance for Hittite grammar. Hittite, however, shows monophthongs from earlier short diphthongs before *h* where related forms without *h* show *ai* or *au* from original long diphthongs.⁵⁶

nehi (*ne-iḫ-ḫi*) 'I lead, turn', pret. 1 s. *nehun* (*ne-iḫ-ḫu-un*) : Skt. *ninaya* 'I led' < IH *neihi* beside 3 s. *nai* : Skt. *nināya* < IH *nēi*. In a number of words Indo-Iranian extended diphthongal finals of 1 and 3 s. perfect by the endings of consonant stems (1 s. *a* < IE *a*, 3 s. *a* < IE *e*) [365].

tehi (*te-iḫ-ḫi*, *te-ḫi*) 'I place' beside 2 s. *taiti* (*da-it-ti*, *ta-it-ti*), 3 s. *tai* (*da-a-i*) : Skt. *dadhau* 'he placed'. In Indo-Iranian *āu* spread at the expense of *āi* as final of vowel stems in 3 s. perfect. In Hittite *ai* spread at the expense of *au* [366].

uhi (*u-uḫ-ḫi*) 'I see', pret. 1 s. *uhun* (*u-uḫ-ḫu-un*) beside 2 s. *auti* (*a-ut-ti*) : Lat. *aurōra*, Dor. *ᾠῶs* 'dawn'.

103b. In pre-IE a short vowel before *h* plus a consonant was lengthened upon the loss of *h*. This phonetic law has some importance for the comparison of Hittite with the IE languages; e.g. Skt. *mātram* 'measure' < IH *mehtram* preserves a trace of the *h* of Hittite *mehur* 'time'; see Lang. 7. 119.

⁵⁶ Lang. 7. 115-24.

y

104a. IH *y* initial remains in Hittite.

yatari (*i-ya-at-ta-ri*), *yata* (*i-ya-at-ta*) 'goes' : Skt. *yāti* 'goes', etc.

yezi (*i-ya-zi*, *i-e-iz-zi*, *i-ya-az-zi*, *i-e-zi*) 'makes', pl. *yenzi* (*i-en-zi*, *i-e-en-zi*) : Gk. ἵημι, Lat. *iacio* 'throw', Toch. B *jam* 'make'.⁵⁷ Beside these inherited forms of the root class, Hittite presents analogical thematic forms such as 1 s. *yami* and 3 pl. *yanzi* [297].

yukan (*i-ú-kán*, *i-ú-ga-an*) : Skt. *yugam*, Gk. ζυγόν, Lat. *iugum* 'yoke'; but the Hittite word may be a loan from Indic [112].

104b. IH *y* remains in Hittite if it is the initial sound of the second syllable of a word, except for the pre-Hittite loss of *y* between like vowels [107].

neyanzi (*ne-e-ya-an-zi*, *ne-ya-an-zi*, *ne-an-zi*) 'they lead, turn' and other thematic forms from the same stem: Skt. *nayati* 'leads'; for the loss of the corresponding 3 s., see [107].

tayezi (*ta-a-i-iz-zi*, *ta-a-i-e-iz-zi*, *ta-i-e-iz-zi*, *da-a-i-iz-zi*, *da-a-i-ya-zi*) 'steals' : Skt. (s)*tāyus* 'thief', ChSl. *taja*, 'steal', etc.

tayukas (*ta-a-i-ú-ga-aš*) 'two years old', *heyus* (*hé-e-u-uš*, acc. *hé-i-ú-un*, gen. *hé-e-ya-u-wa-aš*) 'rain', and some other words of unknown etymology seem to belong here.

105. The glide between *i* or *e* and a dissimilar following vowel remains in Hittite.

meyus (*mi-i-uš*) 'rich',⁵⁸ *meyari* (*mi-ya-ri*) 'prosper', etc. : IE *mei-*, *mi-* 'mild, pleasant'.

Almost all *ya*-stem verbs furnish examples; e.g. pret. *arsaniyet* (*ar-ša-ni-ya-at*) 'envy' : Skt. *irasyati* 'envies'; *spariyezi* (*iš-pár-ri-ya-az-zi*) 'spread, trample' : Gk. σπείρω. Possibly, however, the written *i* is not to be pronounced; *sparye-* would correspond more precisely to the Gk. word [88].

106. IH *y* appears to be lost after initial *s* in *sumanzan* (*šu-um-ma-an-za*, acc. *šu-um-ma-an-za-na-an*) 'cord, rope'(?), *suwel* (*šu-ú-e-el*, *šu-ú-i-il*) 'cord' : Skt. *sīyati* 'sews', *syūtas* 'sewed', *syūman* 'thong', Goth. *siujan* 'sew'; but perhaps we should rather compare Lat. *suo* 'sew', Skt. *sūtram* 'thread, string', and assume IH *sū-*.

107. In pre-Hittite *y* was lost between like vowels, and the vowels contracted.⁵⁹ This phonetic law ceased to operate before IH *ēyo* became *aya* [78, 108].

⁵⁷ Pedersen, Group. 41.

⁵⁸ Götze, NBr. 32 fn. 1. Ehelolf, OLZ 36. 3 fn. 2, would translate *meyus* 'soft, smooth, pleasant'.

⁵⁹ Cf. Götze, Madd. 97; Sommer, AU 357.

Pl. ending of *i*-stems, e.g. *mekes* (*me-ik-ki-eš*), *kwes* (*ku-i-e-eš*, *ku-e-eš*) : Skt. *-ayas*, Gk. *-eis*, Lat. *-ēs*, etc.; but perhaps the IH ending was *eis* [198].

net (*ne-it*, KBo. 4. 2. 3. 50) 'he led, turned' < IH *neyet*, beside *neyanzi* 'they lead, turn' < IH *neyonti*. The contraction of forms with stem vowel *e* made the paradigm very irregular, and this is probably why the perfect forms (Hittite *hi*-conjugation forms) were usually preferred in the active voice except the 3 pl. [361].

Other verbs in IH *eye/o* eliminate the contracted *e*-grade forms by creating new forms on the analogy of the uncontracted *o*-grade. Thus from IH *weye/o* : Av. *vayeiti* 'drives away', Lith. *vejù*, *výti* 'drive, pursue', we find 1 s. *weyami* (*u-i-ya-mi*), 3 s. *weyezi* (*u-i-ya-zi*, *ú-i-e-iz-zi*), imper. 2 pl. *weyaten* (*ú-e-ya-at-tin*, *u-e-ya-[at-tin]*⁶⁰). Similarly from IH *en-meye/o* : Skt. *mayate*, Lett. *mīju*, *mīju*, *mīt* 'exchange' (with an extension in *k̃*, Gk. *μλγνμι*, Lat. *misceo*, Lith. *maišau*, *-yti* 'mix') comes Hittite *emeyezi* (*im-mi-ya-az-zi*).

panzi (*pa-a-an-zi*, *pa-an-zi*) 'they go' comes from IH *bhe-yenti* [283], which yielded pre-Hittite **penzi*. The spread of the ending *anzi* cannot be earlier than the loss of *y* and contraction, since pre-Hittite **peyanzi* would survive.

huwanzi (*hu-u-wa-an-zi*) 'they run, march, flee' comes from IH *ho-we-yenzi* [282], whence pre-Hittite **huwenzi*. The other 3 pl. form, *huwīyanzi* is analogical.

The denominatives in *a(e)*- (IH *āye/o*) show contracted forms where *āyo* originally stood; e.g. 1 s. *ḫa-at-ra-a-mi*, 1 pl. *ḫa-at-ra-a-u-ni*, 3 pl. *ḫa-at-ra-a-an-zi*, pret. 1 s. *ḫa-at-ra-a-nu-un*, 1 pl. *ḫa-an-da-a-u-en*, imper. 3 pl. *ḫa-an-ta-an-du*, part. *a-ra-a-an-za* [310].⁶¹

108. IH intervocalic *y* was lost after original *ā* or Hittite *a* from original *ē* unless it began the second syllable of the word.

Denominatives in *a(e)*- (IH *āye/o*) usually show *ai*, less often *ae*,⁶² where *āye* originally stood; e.g. 3 s. *ḫa-at-ra-a-iz-zi*, *šu-wa-a-iz-zi*, *šu-wa-a-i-e-iz-zi*, pret. 2 s. *ḫa-at-ra-a-eš*, 3 s. *ḫa-at-ra-a-it*, imper. 2 s. *ḫa-at-ra-a-i*, 3 s. *kap-pu-u-wa-id-du* [310].

In the plural of *i*-stems we find four forms with lengthened grade of the stem final, namely: (1) *mekaes* (*me-ig-ga-e-eš*, *me-ig-ga-e-eš*) from *mekis* 'great', *supaes* (*šu-up-pa-eš*) from *supis* 'pure'; (2) *mekaus* (*me-ig-*

⁶⁰ See Götze, Kf 1. 176. 48.

⁶¹ Götze, Madd. 81-100.

⁶² The writing *ae* is frequent enough to justify a suspicion that the pronunciation was in two syllables. I print *ae* in broad transcription.

ga-uš, *me-iq-ga-uš*), *lenkaus* (*li-in-ga-uš*, *li-en-ga-uš*) from *lenkais* 'oath'; (3) *supayas* (*šu-up-pa-ya-aš*), *salayas* (*šal-la-ya-aš*) from *salis* 'great'; (4) *mekaya* (*me-ig-ga-ya*), neut. pl. of *mekis*. The loss of *y* after *a* is clearly illustrated by the second type, *mekaus* < pre-Hittite *megēyus*. The first type, *mekaes*, cannot come from IH *megēyes*, which would become **mekes*; it must come from analogical **mekayes*, with loss of *y* after *a*. Both *supayas* and *mekaya*, as well as similar singular forms (gen. *lenkayas*, dat. *supaya*, abl. *supayaz*), must be due to the analogy of *u*-stem forms like *harnawas*, *harnawi*, *italawaz*, *italawes*, *italawa* [207].

w

109. IH *w* remains in Hittite. For additional examples, see the treatment of *kw* [114], *gw* [115], and *ghw* [116].

arwa(e)- (*a-ru-wa-a-iz-zi*, 3 pl. *ar-wa-an-zi*) 'bow down' : Gk. ἀρά 'prayer, curse', Arc. κάραφος 'accursed'.

hwekzi (*hu-u-e-ik-zi*, *hu-ik-zi*) 'conjures' : Skt. *vakti* 'speaks'.

hweszi (*hu-i-iš-zi*) 'lives', *hwesus* (neut. *hu-u-e-šu*) 'alive, raw' : Skt. *vasati* 'tarries, dwells'.

hwrtā (1 s. *hu-u-wa-ar-daḥ-ḥi*, 3 s. *hur-da-i*) 'curse' : Lat. *verbum* 'word'.

newet (inst. *ne-e-u-it*) 'new', *newah-* (pret. 1 s. *ne-wa-aḥ-ḥu-un*) 'renew' : Skt. *navas* 'new', Lat. *novus* 'new', *novāre* 'renew'.

warp- (*wa-ar-ap-zi*, 3 pl. *wa-ar-pa-an-zi*) 'wash', especially with soap : Goth. *afswairban* 'wipe off, blot out', *biswairban* 'wipe dry', OE *sweorfan* 'wipe, rub'.

wasi (*wa-a-ši*) 'buys', *usniya-* (*uš-ša-ni-ya-zi*, *uš-ni-ya-zi*, 2 pl. *uš-ni-ya-at-te-ni*, pret. 1 pl. *uš-ša-ni-ya-u-e-en*) 'sell', *usnesk-* (midd. *uš-ne-eš-kat-ta*) 'rent' : Skt. *vasnas* 'price', Lat. *vēnum* 'sale'.⁶³

watar (*wa-a-tar*) gen. *wetenas*, *wetnas* (*ú-wi-te-na-aš*, *ú-e-te-na-aš*, *ú-e-it-na-aš*) : Goth. *watō*, gen. *watins*, OS *watar*, OE *wæter* 'water'.

watarnah- (2 s. *wa-tar-na-aḥ-ti*, pret. 1 s. *wa-tar-na-aḥ-ḥu-un*, *wa-a-tar-na-aḥ-ḥu-un*) 'communicate, command', *utar* (*ut-tar*, *ud-da-a-ar*) 'word, thing, affair' [68c] : Skt. *vadati* 'speaks', part. *uditas*.

we-, *wa-* are rarer equivalents of *u-* 'hither'; e.g. *weta-* (*u-i-da-iz-zi*, pret. 3 pl. *ú-e-te-ir*) 'bring',⁶⁴ *wata-* (*ú-wa-te-iz-zi*, 3 pl. *ú-wa-da-an-zi*, pret. 3 pl. *ú-wa-te-ir*) 'bring', from *ta-* 'take'.⁶⁵ The entire group, *u-*,

⁶³ Götze, Madd. 99 fn. 2.

⁶⁴ Sommer, AU 26 fn. 1.

⁶⁵ Both compounds belong to the *mi*-conjugation, while *ta-* 'take' belongs to the *hi*-conjugation. In other words, the compounds go with Gk. δίδωμι, Skt. *dadāmi* and the simple verb with Gk. δέωκα, Skt. *dadau*.

we-, *wa-* 'hither' and *awan* 'apart, off', are cognate with Skt. *ava* 'off, down', Lat. *au-* 'away' (*aufero*, *aufugio*), Lat. *vě-* (*věscor* 'eat' : *ěsca* 'food', *věcors* 'foolish', *věgrandis* 'not large'), Gk. *φο-* (Arc. *φοφλῆκόσι*, having been convicted', Att. *όφείλω* 'be convicted'), Lat. *vesper* 'evening', Eng. *west*.

wekzi (*ú-e-ik-zi*) 'asks' : Skt. *vaṣṭi* 'desires'.

wes (*ú-e-eš*, *ú-i-e-eš*) : Skt. *vayam*, Goth. *weis* 'we'.⁶⁶

wes- (imper. 2 pl. *ú-e-eš-tin*, midd. 3 pl. *ú-e-eš-ša-an-ta*) 'put on, clothe' : Skt. *vaste* 'puts on, clothes oneself', Lat. *vestis* 'garment', Gk. *εἶμα*, *ἔμμα*, *ῥῆμα* 'garment', Goth. *wasjan* 'clothe'.

wesis (acc. *ú-e-ši-in*) 'pasture', *wesiya-* (midd. *ú-e-ši-ya-at-ta-ri*) 'graze', *westaras* (*ú-e-eš-ta-ra-aš*) 'shepherd' : Av. *vāstra-* 'fodder', *vāstar-* 'shepherd'.

weti (dat. *ú-it-ti*) 'year', *sawetesz* (*ša-ú-i-ti-iš-za*) 'of the same year' : Gk. *ἔτος* 'year', Lat. *vetus*, *vetustus*, ChSl. *vetschъ* 'old'.

weya- (*ú-i-ya-zi*, *ú-i-e-iz-zi*, pret. *wi-ya-at*) 'drive, send' : Skt. *veti*, *vayati* 'approaches eagerly, grasps, procures, attacks', Av. *vayeiti* 'drives away', Lith. *vejù*, *výti* 'drive, pursue'.

The causative suffix *nu* probably becomes *nw*, at least if a vowel precedes *n*, before the initial vowel of the ending in 3 pl.; e.g. *arnuzi* (*ar-nu-zi*, *ar-nu-uz-zi*) 'he brings' : Skt. *ṛnoti*, but *arnwanzi* (*ar-nu-an-zi*, *ar-nu-wa-an-zi*) 'they bring' : Skt. *ṛnvanti*. The spelling *nu-an-zi* is the more common (cf. *ku-iš* = *kwis*), but *nu-wa-an-zi* also may stand for *nwanzi* [45b].

109a. In a few instances intervocalic *w* is omitted in writing,⁶⁷ e.g. *ta-aš-ša-<u>i* (KBo. 3. 8. 3. 10), *i-da-a-la-<wa>az* (KUB 15. 42. 2. 9), *i-ya-<u>e-ni* (KUB 24. 4. 1. 9). This orthography probably has no phonetic significance in view of the extremely common writing of intervocalic *w*. In addition to the three instances in the above list we may cite *iwar* 'as', *iwaru* 'share of a father's estate, dowry', *nawi* 'not yet', *pawanz* (pl. *pa-u-wa-an-du-uš*), of uncertain meaning, *tawal*, a sacrificial drink, numerous case forms of *u*-stems as *asawas* (*a-aš-ša-u-wa-aš*) from *asus* 'good', still more numerous verb forms with personal endings *weni*, *wen* as *paiweni* (*pa-a-i-u-e-ni*), infinitive ending *wanzi* as *pawanzi* (*pa-a-u-wa-an-zi*), supine ending *wan* as *akeskewan* (*ak-ki-iš-ki-u-an*), and many verbal nouns with suffix *war*, gen. *was* as *sawar* (*ša-a-u-wa-ar*) 'anger', *yawas* (*i-ya-u-wa-aš*) from *ya-* 'make, do'.

110. Alternation of *w* and *m*, both in Hittite and in IE, results from

⁶⁶ Hrozný, CH 157; Petersen, Lang. 6. 178 f.

⁶⁷ Sommer, AU 352. As usual I do not cite proper nouns.

a pre-IH change of *uw* and *ɔw* to *um*.⁶⁸ This change yielded two forms of suffixes and inflectional endings whose original initial was *w*; the suffix *wer/n* with which verbal nouns were formed got a doublet *mer/n*; the same suffix extended by *t* came to have two forms, *went* and *ment*; the personal endings of the 1 pl. beginning with *w* gained by-forms with *m*. In IE the two forms thus originated are widely preserved, but they have generally been redistributed. Thus the personal endings with initial *w* are confined to the dual in languages that retain that number, and the endings with initial *m* appear everywhere in the plural. Action nouns with suffix *wer* survive in IE only as remnants, and the originally oblique stem *wen* has for the most part taken on other uses, although we find, for example, as infinitives Cyprian δό'φειναι and Vedic *dāvane* 'to give'. On the other hand verbal nouns and infinitives from a stem in *men* are common, e.g. Aeol. δόμεναι 'to give', Av. *staomaine* 'to praise'. The clearest trace in IE of the original distribution of *w* and *m* is presented by the suffixes *vant* and *mant* in Indo-Iranian,⁶⁹ where *mant* is largely confined to *u*-stems and *vant* to other types of stem. The principal exception is the use of *mant* with *i*-stems in Skt., and even this results partly from stems with *i* from IE *ə*.

In Hittite the endings and suffixes with initial *m* are confined to the position after *u* and those with initial *w* to other positions. In the 1 pl. we find *paiweni* (*pa-a-i-u-e-ni*) 'we go' beside *paizi* (*pa-iz-zi*) 'he goes', but *arnumeni* (*ar-nu-um-me-ni*) 'we bring' beside *arnuzi* (*ar-nu-zi*) 'brings' and *tumeni* (*tum-me-ni*) 'we take' beside *tai* 'takes' : IE *dō/ə*, Skt. perfect *dadau*, *dadima* 'give'. The infinitive shows *pawanzi* (*pa-a-u-wa-an-zi*) 'to go', but *wahnumanzi* (*wa-aḥ-nu-um-ma-an-zi*) 'to turn' beside *wahnuzi* (*wa-aḥ-nu-zi*), *tarnumanzi* (*tar-nu-ma-an-zi*) 'to put in' beside *tarnai* (*tar-na-a-i*, *tar-na-i*). Among the verbal nouns and their stereotyped genitives we meet *yawar*, *yawas* (*i-ya-u-wa-ar*, *i-ya-u-wa-aš*) from *ya-* 'make, do', but *wahnumar* (*wa-aḥ-nu-mar*) from *wahn-* 'turn', *warnumas* (*wa-ar-nu-ma-aš*) from *warnu-* 'burn', *tarnumar*, *tarnumas* (*tar-nu-mar*, *tar-nu-um-ma-aš*) from *tarna-* 'turn' (a stem with suffix *nā*). Stems with final long vowel sometimes show zero grade instead of reduced grade before ending or suffix; e.g. *tarnwen* (*tar-nu-en*) 'we put in', *penwanzi* (*pī-en-nu-an-zi*) 'to lead with one' beside *penumanzi* (*pī-en-nu-ma-an-zi*). Sometimes also we have full grade, either inherited as in *tawar* (*da-a-u-wa-ar*) 'a taking' : Cyprian δό'φειναι, Vedic

⁶⁸ AJP 50. 360-9, TAPA 60. 33 f., Lang. 7. 170.

⁶⁹ Bender, The Suffixes *mant* and *vant* in Sanskrit and Avestan, especially pp. 11, 24, 27; Sturtevant, AJP 50. 367, 369, TAPA 60. 33.

dāvane, or analogical as in *tawen* (*da-a-u-en*) 'we took' beside *tumeni* (*tum-me-ni*) 'we take'. Verbs with stems in *u* sometimes reflect an apparent loss of *u* before *w* of the ending, as in *akweni* (*a-ku-e-ni*) 'we drink, give to drink', *ekwen* (*e-ku-e-en*) 'we drank', on which see [54a]. Occasionally one may prefer to assume analogical restoration of *w* after *u*, as in *wa-aḥ-nu-u-wa-ar* = *wahnumar*; but even here it is possible to read *wahnwar*.

k (IE *k̑*, *k*)

111. IH *k* remains in Hittite; it is normally written double between vowels, and sometimes a non-phonetic vowel is introduced into a consonant group to make possible the double writing of original *k* [66]. For further examples, cf. the group *kw*, *ku* [114].

ark- (verbal noun *ar-ku-u-wa-ar*) 'shut in, ward off' : Gk. ἀρκέω 'ward off', Lat. *arceo* 'shut in, ward off', Arm. *argel* 'obstacle'.

henkzi (*hi-in-ga-zi*, *hi-ik-zi*, pret. 2 s. *hi-en-ik-ta*) 'determines', *henkan* (*hi-in-kán*, *hi-en-kán*) 'fate, death, pestilence' : Gk. ἀνάγκη 'necessity', OIr. *écen*, Welsh *angen*, Corn., Bret. *anken* 'need, necessity'.

kanes- (*ga-ne-eš-zi*, *ga-ni-eš-zi*, pret. *ka-ni-eš-ta*, *ka-ni-iš-ta*, *ga-ni-iš-ta*) 'find, favor' : Skt. (aor.) *akāniṣam*, perf. *cākana* 'be pleased, enjoy', *canas* 'gladness', Av. *čānah-*, *činah-*, *činman-* 'desire'.

kank(a)- (1 s. *ga-an-ga-aḥ-ḥi*, *kán-ga-aḥ-ḥi*, 3 s. *ga-an-ki*, *ga-an-ga-i*) 'hang' (trans.) : Goth. *hāhan*, 'hang' (intrans.), OHG *hāhan*, OE *hōn* 'hang' (trans.).

kartīs (gen. *kar-di-aš*, *kar-di-ya-aš*, dat. *kar-di*) : Gk. καρδία, Lat. *cor*, Goth. *hairto*, Lith. *širdis* 'heart'.

kas (*ka-a-aš*, acc. *ku-u-un*, gen. *ki-e-el*) 'this', *kisan* (*ki-iš-ša-an*, *kiš-an*) 'thus' : Gk. κεῖνος 'that', Lat. *cedo* 'give here', *-ce* (appended to demonstratives), *citra* 'on this side', Lith. *šis*, ChSl. *съ* 'this'.

kata, *katan* (*kat-ta*, *kat-ta-an*) 'with, among; down, beneath; just so' : Gk. κατὰ 'beside, opposite, along, about; down'.

keta (*ki-it-ta*), *ketari* (*ki-it-ta-ri*) : Skt. *sete*, Gk. κείται 'lies'.

kesa (*ki-i-ša*, *ki-ša*), *kesari* (*ki-ša-ri*, *ki-i-ša-ri*) 'becomes' : Skt. *śeṣan*, aor. subj. 3 pl. from *śi-* 'lie'.

lukzi (*lu-uk-zi*), *lukezi* (*lu-uk-ki-iz-zi*) 'kindles, burns', *lukata* (*lu-uk-kat-ta*), *lukate* (*lu-uk-kat-ti*, *lu-uk-kat-te*) 'day dawns' : Skt. *rocate* 'shines', Gk. λευκός 'bright, light', Lat. *lūceo* 'shine'.

maklant- (acc. *ma-ak-la-an-ta-an*) 'thin, lean' : Av. *masah-* 'length', Gk. μακρός 'long', μήκος 'length', Lat. *macer* 'lean, slender', *maceo* 'be lean'.

mark- (3 pl. *mar-kán-zi*, pret. *ma-ra-ak-ta*) 'cut up' (a sacrificial victim); OE *meorh* 'sausage', OIsl. *mo.r* 'das Fett im Innern eines geschlachteten Tieres', Arc. *μίμαρκυς* 'hare-soup' or 'jugged hare' with the blood in it.

nenk- (*ni-ni-ik-zi*, 3 pl. *ni-in-kán-zi*) 'rise, get drunk', *nenenk-* (*ni-ni-ik-zi*, 3 pl. *ni-ni-in-kán-zi*) 'raise, lift up, gather' : Skt. *naśati*, *aśnoti* 'attains', *naśas* 'attainment', Gk. *ἐνεγκείν* 'to carry', Lat. *nanciscor*, *nactus* 'get'.

saklais (*ša-a-ak-la-iš*) 'rite, custom, law, command' : Lat. *sacer* 'sacred', *sancio* 'ordain', OE *seht* 'treaty'.

skala- (*iš-gal-la-i*, *iš-kal-la-i*, midd. *iš-kal-la-a-ri*) 'maims' (perhaps more explicit, 'splits, cuts off' an ear) : Gk. *σκάλλω* 'hoe', Goth. *skiljan* 'separate, cut', Lith. *skeliù*, *skéliti* 'split'.

wakari (*wa-aq-ga-a-ri*) 'is lacking', *wakariya-* (*wa-aq-ga-ri-ya-zi*) 'rebel' : Skt. *śṛṇāti* 'crushes', Gk. *κεραῖζω* 'waste, plunder', Lat. *cariēs* 'decay'.

waki (*wa-a-ki*) 'bites, pecks' < IH *wo-oke*⁷⁰ : Skt. *āśa* 'he ate' (but *k* is uniformly written single).

wekzi (*ú-e-ik-zi*) 'asks' : Skt. *vaṣṭi* 'desires', Gk. *ἐκών* 'willing'.

The suffix *ske/a*, which may be appended to any Hittite verbal stem to form an iterative-durative, is familiar in the IE languages. Inherited forms are *arskezi* (*a-ar-aš-ki-iz-zi*) 'comes' : Skt. *ṛcchati* 'goes' and *uskezi* (*uš-ki-iz-zi*) 'sees' : Skt. *ucchati* 'shines'.

g (IE *ǵ*, *g*)

112. IH *g* becomes Hittite *k*; it is always written single [66–68]. For further examples, cf. the group *gw*, *gu* [115].

harkis (*ḫar-ki-iš*) 'white' : Skt. *arjunas* 'white, bright', Gk. *ἀργής* 'bright', *ἀργός* 'shining', *ἄργυρος* 'silver'.

hatk- (*ḫa-at-ki*, 3 pl. *ḫa-at-kán-zi*) 'shut in, close' < IH *ho-tg-* : Skt. *sthagati* 'cover, conceal', Gk. *στέγω* 'cover, protect', Lat. *tego* 'cover'.

kenu (*gi-e-nu*) 'knee' : Skt. *jānu*, Av. *žnu-*, Gk. *γόνυ*, Lat. *genū* Goth. *kniu* 'knee'.

yukan (*i-ú-kán*, *i-ú-ga-an*) 'yoke' : Skt. *yugam*, Gk. *ζυγόν*, Lat. *iugum*, Goth. *juk* 'yoke'; but until related verbal forms are discovered in Hittite there is a chance that *yukan* is an Indic loan-word.

gh (IE *ǵh*, *gh*)

113. IH *gh* becomes Hittite *k*; it is always written single [66–68]. For further examples, cf. the group *ghw*, *ghu* [116].

⁷⁰ For IH *wo-*, see [286].

kari (dat. *ka-a-ri*) 'concession', *kariya-* (midd. pret. 1 s. *ka-ri-ya-aḥ-ḥa-at*) 'yield, concede' : Skt. *haryati*, *haryate* 'is gratified', Gk. χαίρω 'be glad', χάρις 'grace, favor', Lat. *horior*, *hortor* 'urge', Osc. *herest* 'volet'.⁷¹

karpis (*kar-pi-iš*) 'anger' : Skt. *haras* 'anger', *hṛṇīte* 'is angry', Av. *zar-* 'make angry', Gk. χαρά·ὀργή (Hesych.).

kasz (*ka-a-aš-za*, dat. *ka-a-aš-ti*) 'hunger' : Toch. *kašt* 'hunger', Skt. *jahāti* 'leaves', Av. *zazāiti* 'dismisses', Gk. χήρει (dat.) 'lack, need', χήρα 'widow'.

kemanz (*gi-im-ma-an-za*, acc. *ki-im-ma-an-tin*) : Skt. *hemantas*, Gk. χεῖμα, Lat. *hiems*, Lith. *žiemà*, ChSl. *zima* 'winter'.

kesar (*ki-eš-šar*) : Toch. A *tsar*, B *šar*, Gk. χεῖρ 'hand'.

krap- (*ka-ra-a-pt*, pret. 3 s. *ka-ri-pa-aš*, 3 pl. *ka-ri-e-pti-ir*) 'devour' : Skt. *grabh-*, *grah-* 'seize', Eng. *grab*, Lith. *grabūs* 'good at stealing', *grėbiu*, *grėbti* 'rake, seize violently, rob'.

laki (*la-a-ki*) 'causes to fall', *lakari* (*la-ga-a-ri*) 'lies', *saleka* (*ša-li-ga, ša-li-i-ga*) 'lies with' : Gk. λέχος 'bed', λέχεται κοιμᾶται (Hesych.), Lat. *lectus* 'bed', Goth. *ligan* 'lie', ChSl. *leža*, *ležati* 'lie'.

lenkais (acc. *li-en-ga-in*) 'oath', *lenkzi* (*li-ik-zi*, *li-in-ga-zi*) 'swears' : Gk. ἔλεγχος 'test, disproof, reproach', ἐλέγχω 'examine, confute, put to shame', Lett. *langāt* 'insult, call names'.

pankus (*pa-an-ku-uš*) 'all, whole, people, army', *pankaret* (inst. *pa-an-ga-ri-it*, *pa-an-ga-ri-it*) 'in force' : Skt. *bahuṣ* 'abundant, much', *bañhiṣṭhas* 'strongest', Av. *bazah-* 'height, depth', Gk. παχύς 'thick', πάχος 'thickness'.

parkus (*pār-ku-uš*) : Arm. *barjr* (*u-stem*) 'high', Skt. *bṛhant-* 'high, great', Av. *bərəzant-* 'high'.

pe harkanzi (*pi-e ḥar-kán-zi*) 'they carry' : Goth. *batrgan* 'protect' [76].

talukaes (pl. *da-lu-ga-e-eš*) 'long', *talukeszi* (*ta-lu-ki-iš-zi*, *ta-lu-kiš-zi*) 'becomes long', *talukasti* (*da-lu-ga-aš-ti*) 'length' : Skt. *dīrghas*, Gk. δολιχός, ChSl. *dlǫgъ* 'long', *dlǫgostъ* 'length'.

tekan (*te-kán*, *te-e-kán*) 'earth', gen. *taknas* (*ták-na-aš*, *ták-na-a-aš*), *takan* (*ta-ga-a-an*, *da-ga-a-an*, *ta-ga-an*, *da-ga-an*) 'to the ground', *takanzipas* (*da-ga-an-zi-pa-aš*) 'earth' : Toch. A *tka*, B *ke*, 'place', Skt. *kṣās*, loc. *kṣami*, Gk. χθών 'earth', χαμαί 'on the ground'. Gk. and Skt. show metathesis of IH *dhgh-*.⁷²

⁷¹ I am indebted to Mudge for this etymology.

⁷² Pedersen, Group. 41 f.; Kretschmer, Glotta 20. 65-7.

kw, ku (IE *kw*)

114. IH *kw* and *ku* remain in Hittite, except that *w* and *u* are sometimes lost by analogy or by dissimilation; *k* is normally written double between vowels [66].⁷³ Hittite retains the original alternation of the two groups (*kw* before vowels, *ku* before consonants), while the IE languages have usually lost the labial before consonants except that Gk. shows π, less frequently κν, and the other languages occasionally have *ku*.

akwanzi (*a-ku-wa-an-zi*, *a-ku-an-zi*) 'they drink, cause to drink', pret. 3 pl. *ekwer* (*e-ku-ir*, *e-ku-i-e-ir*), infin. *akwana* (*a-ku-wa-an-na*); before consonants 3 s. *ekuzi* (*e-ku-zi*), 2 pl. *ekuteni* (*e-ku-ut-te-ni*), imper. 2 s. *eku* (*e-ku*), 2 pl. *ekuten* (*e-ku-ut-tin*), interative-durative *akuskezi* (*ak-ku-uš-ki-iz-zi*), *akuskanzi* (*ak-ku-uš-kán-zi*); inst. *akukalet* (*a-ku-ga-al-li-it*) 'water pourer, pitcher'. The verb appears in IE only in Toch. *jokə*. 'he drinks', mā *jokalle* 'one should not drink',⁷⁴ but the noun Lat. *aqua*, Goth. *aha* 'water' is familiar.

kwerzi (*ku-ir-zi*, *ku-e-ir-zi*) 'cuts off', pret. *kwert* (*ku-e-ir-ta*); before consonants 3 pl. *kuranzi* (*ku-ra-an-zi*), imper. 3 pl. *kurantu* (*ku-ra-an-du*), part. *kurantān* (*ku-ra-an-ta-an*), *kuran* (*ku-ra-an*); *kukursanz* (pl. *ku-kur-ša-an-te-eš*) 'mutilated', *kukursk-* (*ku-uk-kur-iš-ki-iz-zi*, *ku-uk-kura-aš-kán-zi*) 'cut off'; *kursas* (acc. *kur-ša-an*) 'hide';⁷⁵ *kurur* (*ku-u-ru-ur*, *ku-ru-ur*) 'hostile, hostility'; *kurtas* (acc. *gur-ta-an*, dat. *gur-ti*) 'citadel'. Osc. *petiropert* 'four times' preserves a trace of IE *kw*, if it is to be compared with Skt. *sakṛt* 'once'.⁷⁶ IE *kur-* survives in Lat. *curtus* 'mutilated' and Kurd. *kūrd* 'short'; cf. Lat. *culter* 'knife' from the parallel root with *l*. The great mass of IE forms show loss of the labial (i.e., they have a pure velar); e.g. Gk. *κείρω* 'cut', Lat. *corium* 'hide', *caro* 'flesh'. The labial was lost by dissimilation in certain common words from a form of the root extended by *eu*; e.g. Skt. *krūras* 'wounded, bloody, cruel', Av. *xrūra-* 'bloody, cruel' (: Hittite *kurur* 'hostile'); Skt. *kraviṣ* 'raw flesh', Gk. *κρέας* 'meat', Lat. *cruor* 'blood', *crūdus* 'raw'; Gk. *κόρυκος* 'leather sack'; Goth. *hāirus* 'sword'. Possibly the extensions in *p* (Skt. *krpāṇas* 'sword', Gk. *καπνός* 'grain', Lat. *carpo* 'harvest'), in *b* (OE *sceorpan*, *scearp* 'scratch'), and in *m* (OHG *scrama* 'large knife') assisted in the almost complete banishment of *w/u* from

⁷³ Arzawan *pipit* (*pi-ip-pi-it*—VBoT 1. 5, 9) seems to be equivalent to *kuit* *kuit*, although *kwin* and *kwis* occur in the same letter. If so the form is dialectic; cf. Forrer, *Forschungen* 2. 60–4.

⁷⁴ Pedersen, Group. 40.

⁷⁵ Sommer, AU 181 f., 381.

⁷⁶ Pedersen, IF 5. 39 fn. 1, KG 1. 43; Niedermann, RhM 52. 505; but cf. Buck, A Grammar of Oscan and Umbrian 139.

the IE languages. Hittite also has two verbs without *u* or *w* and both correspond with IE stems; *karszi* (*kar-aš-zi*) 'cuts off' : Gk. ἀκερσεκόμης 'long-haired',⁷⁷ and *karpzi* (*kar-ap-zi*, 3 pl. *kar-pa-an-zi*) 'gathers, musters, takes' : Lat. *carpo* 'reap', Gk. καρπός 'grain'.

kwis (*ku-iš*) 'who, which', pl. *kwes* (*ku-i-e-eš*, *ku-e-eš*), neut. pl. *kwe* (*ku-e*, *ku-i-e*), *kwapi* (*ku-wa-pí*) 'where, when'; as final *-ku* in *kwis-ku* (*ku-iš-ku*) 'quisquam'; *-ku* . . . *-ku* 'either . . . or'. The IE stem *kwi-*, *kwo-* is familiar, and there are also many forms from an IE stem *ku-*⁷⁸; e.g. Skt., Av. *kū* 'where', Skt. *kutas* 'whence', *kuha* 'where', *kutra* 'whither', Lat. *alicubi* 'elsewhere'. Osc. *puf*, Umbr. *pufe* 'where', and Cretan *ὅπυ* 'whither' show contamination of IE *kwo-* and *ku-*. The dissimilative loss of *w* appears in Hittite *-ki*, *-ka* (equivalent to *-ku*) in *kwis-ki* (*ku-iš-ki*), *kuiska* (*ku-iš-ka*, gen. *ku-e-el-qa*) 'quisquam', and in Gk. *κως*, *ὄκως*, *κότερος*, *πολλάκι*, *καί*, etc.

sakwa (*ša-a-ku-wa*, *ša-ku-wa*) 'eyes', *sakwa(e)-* (part. *ša-a-ku-wa-an*) 'see' : Goth. *saihan* 'see', Gk. ὄσσε 'eyes', ὄμμα 'eye', ὀψομαι 'will see', Lat. *oculus* 'eye' [143a]. Hittite *sak-* (1 s. *ša-ag-ga-aḫ-ḫi*, 2 s. *ša-ak-ti*, 3 s. *ša-ak-ki*, 1 pl. *še-ik-ku-e-ni*, 3 pl. *ša-kán-zi*, pret. 3 pl. *še-ik-ki-ir*) 'know' must be equated with Goth. *sah* 'he saw', *sēhum* 'we saw'. Probably the Hittite loss of *w* began in the 1 pl., where *sekwen(i)* is due to the analogy of the second class of the *hi*-conjugation; *tarnwen* 'we put in' < IH *trnwe* with zero grade of the suffix *nā* (cf. Av. *hvanmahī* 'we incite' beside *hunāiti*) is as original as the equivalent *tarnumen* < IH *trnume* < pre-IH *trnawe* [110], whence the proportion *tarnumen* : *tarnwen* = **sekumen* : *sekwen*. Just so we have analogical *akweni* 'we drink' instead of anticipated **ekumeni* [54a]. From the verb *sak-/sek-* 'know' the loss of *w* spread to *sakais* (*ša-ga-iš*) 'omen', *sakiya-* (*ša-ki-ya-az-zi*, pret. *ša-ak-k[i-ya-at]*) 'make known, declare', and *sakiyahzi* (*ša-ki-ya-aḫ-zi*) 'gives a sign'.

kutrus (gen. *ku-ut-ru-aš*, pl. *ku-ut-ru-e-eš*) 'witness' and its derivative, *kutruwaezi* (*ku-ut-ru-wa-a-iz-zi*, *ku-u-ut-ru-wa-a-iz-zi*) 'make one a witness' come from IH *kutreu-/kutru-* [99], while Av. *čaθruš* 'four times' implies IH *kwetru-*, and Gk. *τρυ-φάλεια* 'helmet' comes from IH (*k*)*tru-*. IE preserves no direct evidence of anticonsonantal *ku* in this stem.

tekusami (*te-ik-ku-uš-ša-mi*) 'I show', pret. *tekuset* (*te-ik-ku-uš-ši-e-et*), *tekusest* (*te-ik-ku-uš-še-eš-ta*), *tekusnu-* (pret. *te-ik-ku-uš-ša-nu-ut*, 3 pl. *ti-ik-ku-uš-nu-ir*) 'prove' comes from the root of Skt. *disati* 'shows',

⁷⁷ I am indebted to Mudge for this etymology.

⁷⁸ The assumption of IE *q^wu-* was based upon Osc. *puf*, Umbr. *pufe* 'where', etc., and upon the conviction that the labio-velar was a single phoneme.

Gk. *δεικνυμι* 'show', and Lat. *dīco* 'say', and it must contain the aorist suffix *so/e* of Skt. *adikṣat* with the full grade vocalism of Gk. *ἔδειξα*. IE retains no trace of *kw* or *ku* at the end of the root unless it be the *v* of Gk. *δεικνυμι*.

hwek-, *huk-* (*hu-u-e-ik-zi*, 3 pl. *hu-u-kán-zi*, *hu-kán-zi*, pret. *hu-e-ik-ta*) 'conjure' : Skt. *vakti* 'speaks', part. *uktas*, Gk. *ἔπος* 'word', *ὄψ* 'voice', Lat. *vōx* 'voice'. Hittite has here completely lost the *u* or *w* after *k* by dissimilation after *u* or *w* in the first syllable.

gw, gu (IE *gw*)

115. IH *gw* becomes Hittite *w*, but *gu* becomes Hittite *ku*, except that the resulting contrast tends to be eliminated by analogy and that *u* and *w* are sometimes lost by dissimilation. The *k* from *gu* is always written single [66].

The theory that IH *gw* and *ghw* > Hittite *w* is based upon seven etymologies, of which three are not cogent (*-wa*, *walh-*, *wenzi* [116, s. v. *kwen-*]), and it is opposed by four words (*parkwis*, *kwenzi*, *sakwis*, *tankwis*), for which, however, analogy offers an easy explanation. Some will prefer to reject all the etymologies involving *w* in order to harmonize the development of *gw* and *ghw* with the treatment of stops in other groups.⁷⁹

-wa, the particle of direct address, is appended to the first full word of a quotation; if it is followed by the enclitic pronoun *-as* 'he' it appears as *-war* (*nu-wa-ra-aš* '“and he”'). Boisacq⁸⁰ noted that ChSl. *že* combines the forces of Gk. *δέ* and *γε* and can be connected with the former on the basis of IE *gwe*. Gk. *γε* may be the dissimilated form after *u* (e.g. *σὺ γε*), while Dor. *γα* may come from IE *gwb* and *γάρ* from IE *gwb* *vr* (Gk. *ἄρ*, *ῥά* : Lith. *ir*). I suggest the equation of *-wa* with Dor. *γα* and of *-war* with Gk. *γάρ*.

walh- (*wa-al-aḥ-zi*, 3 pl. *wa-al-ḥa-an-zi*) 'strike' : Gk. *βάλλω* 'throw'; *h* is a suffix that forms transitive verbs [348], and it may or may not be present in Gk. *βάλλω*. Without the suffix we have Hittite inst. *akukalet* (*a-ku-ga-al-li-it*) 'water-pourer, pitcher' : Skt. *galatī* 'drips', *gālayati* 'pours', *jalam* 'water'; its *gw* was dissimilated to *g* by the preceding *u* before the change of *gw* to *w*.⁸¹

⁷⁹ So Petersen, Lang. 9. 20 f., and Kurylowicz in conversation. The former connects *warani* 'burns' with Lith. *vérdū*, *virti* 'cook', and suggests that *wemiya-* 'find' and *wa-* 'come' may have been influenced by **wadh-* 'come'.

⁸⁰ Dict. s. v. *δέ*.

⁸¹ Carruthers, Lang. 9. 153, correctly identifies the first element of this compound, but he sees Lat. *galea* 'helmet' in the final element.

wemiyezi (ú-e-mi-ya-zi, ú-e-mi-ya-az-zi, ú-e-mi-iz-zi, ú-e-mi-e-zi, ú-e-mi-e-iz-zi) 'comes upon, finds' : Lat. *venio* 'come' < IH *gwemyo/e*. Hittite and Latin are easily connected on the basis of a full grade vowel in IH; the equation of the former with Gk. *βαλω* is impossible.⁸²

wa-, *we-* (1 s. ú-wa-mi, 2 s. ú-wa-ši, 3 s. ú-iz-zi, 1 pl. ú-wa-u-e-ni, 2 pl. ú-wa-at-te-e-ni, 3 pl. ú-wa-an-zi, pret. ú-it) 'come' : Skt. *jigāti* 'goes', *agāt* 'he came', Dor. *ἔβᾱν* 'I went'. IH *gwā-* and *gwə-* both yielded Hittite *wa-*, which gave many parts of the verb the appearance of thematic forms. Hence the 3 s. became *wezi*, *wet*, *wetu*; but inherited *a* persisted in pres. 2 s. and in 2 pl. of both tenses and of the imper.

weriyezi (ú-e-ri-ya-zi, ú-e-ri-i-e-iz-zi) 'invites, summons, names', with *anda* 'conspires' : Skt. *grṇāti* 'praises, recites', *saṃgirati* 'agrees, promises', *gūrtas* 'welcome', Lat. *grātus* 'welcome, agreeable', *grātēs* 'thanks', Osc. *brateis* 'gratiae', Lith. *giriù*, *girti* 'praise'.

parkwis (pār-ku-i-š, pār-ku-i-i-š, pl. pār-ku-e-e-š, neut. pār-ku-wa) 'pure', *parkwa(e)-* (pār-ku-wa-an-zi) 'be pure', *parkweszi* (pār-ku-e-e-š-zi, pār-ku-i-š-zi) 'is acquitted'; before consonants *parkus* (acc. pār-ku-un) 'pure', *parkunuzi* (pār-ku-nu-uz-zi, pār-ku-nu-zi) 'purifies, forgives'. The analogy of the forms with *ku* must have restored *kw* for antevocalic *w*. Without *w* or *u* we have *parkan* (pār-kán) 'atonement' or the like, *parkanusi* (pār-ga-nu-ši—KUB 24. 7. 2. 11) 'you purify', *parkiyanwanzi* (pār-ki-ya-nu-wa-an-zi) 'to purify, acquit'.⁸³ In IE we have only forms without *w* or *u*; e.g. Skt. *bhrājate* 'shines', Goth. *bairhts* 'bright', Lith. *bėržas* 'birch'.

kesta- (ki-iš-ta-ri, pret. ki-iš-ta-ti, imper. ki-iš-ta-ru) 'go out, be quenched', *kestanu-* (1 s. ki-iš-ta-nu-mi, imper. 2 pl. ki-eš-ta-nu-ut-tin) 'quenched', *kustwantawar* (ku-uš-du-wa-an-ta-u-wa-ar) 'destruction' : Goth. *qistjan* 'destroy', Lith. *gestù*, *gesaũ*, *gėsti* 'be quenched', Gk. *σβέννυμι*, *σβεσαι*, *ἔσβην* (< *sgwēht-) 'quench'. Hittite *kustwantawar* is a verbal noun from a denominative verb **kustwanta(e)-*, and that is based upon an adjective **kustwant-* 'having destruction'. In the verb we should expect **west-*, **kust-*, or analogical **kwest-*, **kust-*; the reason for the loss of *w* is not apparent (contamination with *ke-* 'lie?').

kutar (ku-ut-tar) 'neck, strength' : Lat. *guttur* 'throat, gullet', Goth. *qipus* 'stomach'.

nekuzi (ne-ku-zi) 'undresses, goes to bed', *nekutat* (ne-ku-ut-ta-at)

⁸² The assumption of a phonetic law (IE *my* > Lat. *eni*) on the basis of this one comparison was methodically unsound, and now that the Hittite word has been discovered the assumption is obviously false.

⁸³ I cannot believe in Friedrich's change of *uy* to *iy* [44a].

'people undressed, it was bed-time', *nekuz* (*ne-ku-uz*, gen. *ne-ku-uz*) 'bed-time, evening'; *nekumanz* (*ne-ku-ma-an-za*) 'naked' (i.e. 'having nakedness' [177]): IE *nokt*, *nokti* < IH *nogu-t(i)-*, Skt. *nak* 'night', *naktam* 'at night', Lat. *nox*, Goth. *nahts*, Lith. *naktis*, ChSl. *noštъ* 'night';⁸⁴ Lith. *nuogas*, ChSl. *nagъ* 'naked' (< IE *nōgos*), Gk. *γυμνός* 'naked' (< IE *ngu-mn-os* under the influence of the synonym *λυμνός*), Lat. *nūdus*, Goth. *naqaps* 'naked'.

ghw, ghu (IE *ghw*)

116. IH *ghw* becomes Hittite *w*, but *ghu* becomes Hittite *ku*, except that the resulting contrast is sometimes eliminated by analogy. The *k* from *ghu* is always written single [66].

warani (*wa-ra-a-ni*, *ú-ra-a-ni*) 'is burnt', part. *waranz* (*wa-ra-an-za*), *warnuzi* (*wa-ar-nu-zi*, *wa-ar-nu-uz-zi*) 'causes to burn': *ghrṇoti* 'shines, glows', *gharmas* 'heat', *haras* 'fire', Gk. *θερμός* 'hot'.

kwen- (1 s. *ku-e-mi*, 2 s. *ku-e-ši*, 3 s. *ku-en-zi*, pret. 1 s. *ku-e-nu-un*, 3 s. *ku-en-ta*, 1 pl. *ku-e-u-en*, 3 pl. *ku-e-nir*) 'strike, kill', with suffix *na* 1 pl. *kwenumeni* (*ku-en-nu-um-me-e-ni*), 2 pl. *kwenateni* (*ku-en-na-at-te-ni*), 3 pl. *kwenanzi* (*ku-en-na-an-zi*), iterative-durative *kwask-* (pret. *ku-wa-aš-ki-it*); before consonants 3 pl. *kunanzi* (*ku-na-an-zi*), imper. 3 pl. *kunantu* (*ku-na-an-du*), part. *kunanz* (*ku-na-an-za*): Skt. *hanti*, *ghnanti* 'strike, kill', Gk. *θεῖνω* 'strike', *φόνος* 'murder'. The Hittite forms in *kw* are analogical. We probably have the phonologically correct form in several passages of the Law Code,⁸⁵ where *wenzi* (*ú-en-zi*) means 'have irregular intercourse with' a woman; if so the transitional meaning must have been 'attack, violate' or the like.

sakwis (*ša-ku-iš*) 'spring, well'; before consonants *sakuni-* (gen. *ša-ku-ni-ya-aš*, dat. *ša-ku-ni-ya*), *sakunesk-* (2 s. *ša-ku-ni-eš-ki-ši*) 'gush';⁸⁶ *kuskuszi* (*ku-uš-ku-uš-zi*) 'mixes' (< IH *kuskeusti*): Skt. *juhōti*, Gk. *χέω*, Lat. *fundo*, Goth. *giutan* 'pour'. This group of words might as well be entered under *gh* (IE *gh, gh*) [113]; but from the point of view of Hittite and of IH there is no distinction between palatal and labio-velar except that the latter is followed by *w* or *u*. We must therefore assume that *sakwis* for **sawis* is analogical.

tankwis (*da-an-ku-iš*, dat. *da-an-ku-wa-i*) 'black, dark', *tankwes-* (pret. *da-an-ku-iš-ki-it*) 'grow dark'; before consonants *tankunu-* (part. *da-an-ku-nu-wa-an-te-eš*) 'make black', *tankunesk-* (pret. 3 pl. *da-an-*

⁸⁴ Perhaps Gk. *νύξ* got its *u* from the gen.; IE *negutós* > *νυκτός*?

⁸⁵ KBo. 6. 26. 3. 33, 45; KUB 13. 14. 2. 2.

⁸⁶ Forrer, RHA 1. 147 f.

ku-ni-eš-kir) : Gk. *δνέρος* 'darkness' (base *deneghew*). Here again *kw* is analogical.

I

117. IH *t* remains in Hittite except before *i* or *ē* [119, 120]; it is normally written double between vowels, and sometimes a non-phonetic vowel is introduced into a consonant group to make possible the double writing of original *t* [66]. Hittite *ts* is written *z* [61]. For the development of IH *tst*, etc., see [126].

hanz (*ha-an-za*) 'front', *hanti* (*ha-an-ti*) [119a] 'in front, especially, separately', *hantezis* (*ha-an-te-iz-zi-iš*) 'first' : Gk. *ἀντί* 'opposite', *ἄντα* 'face to face'.

hastai (*ha-aš-ta-i*) 'bones' : Skt. *asthi*, Gk. *ὀστέον* 'bone'.

kata (*kat-ta*), *katan* (*kat-ta-an*), *kate-* (*kat-ti-eš-ši*) 'with, together, down' : Gk. *κατά*, *κατά* 'along, according to, down'.

kemanz (*gi-im-ma-an-za*, acc. *ki-im-ma-an-tin*) : Skt. *hemantas* 'winter'.

kesta- (*ki-iš-ta-ri*, pret. *ki-iš-ta-ti*) 'be quenched', *kestanu-* (1 s. *ki-iš-ta-nu-mi*, imper. 2 pl. *ki-eš-ta-nu-ut-tin*) 'quench' : Goth. *qistjan* 'destroy', Gk. *σβέννυμι* 'quench'.

kutar (*ku-ut-tar*) 'neck, strength' : Lat. *guttur* 'throat, gullet', Goth. *qipus* 'stomach'.

kutrus (gen. *ku-ut-ru-aš*, pl. *ku-ut-ru-e-eš*) 'witness' : Skt. *catwāras*, Lat. *quattuor*, Osc. *petora*, Goth. *fidwōr*, Lith. *keturi* 'four'.

melit (*mi-li-it*) : Lat. *mel*, Goth. *miliþ* 'honey'.

peta(e)- (*pīt-ta-a-iz-zi*) 'flee, fly, fall', *petar* (*pīt-tar*) 'wing' : Gk. *πέτομαι* 'fly', Lat. *peto* 'go to', Skt. *patram* 'wing'.

septamas (dat. *ši-ip-ta-mi-ya*) : Skt. *saptamas*, Lat. *septimus* 'seventh'.

stamar (GEŠTUK-ar, inst. *iš-ta-ma-an-ta*) 'ear' : Gk. *στόμα* 'mouth', Av. *staman-* 'mouth' (of a dog).

stantaet (*iš-ta-an-da-a-it*, *iš-ta-an-ta-it*) 'tarried', *titanuzi* (*ti-it-ta-nu-uz-zi*) 'causes to stand', *stapi* (*iš-tap-pi*) 'shuts in, stores away' : Gk. *ἵστημι*, Lat. *stāre*, Skt. *tiṣṭhāmi* 'stand', *sthāpayati* 'causes to stand'.

star (*ši-it-tar*) 'star' : Skt. inst. pl. *stṛbhīṣ*, Av. acc. s. *stāram*, Gk. *ἀστήρ*, Lat. *stella*, Goth. *stairnō* 'star'.

ta, sentence connective, *tan* (*ta-an*) 'et eum' : Skt. *tam* 'eum', Gk. *τόν* 'the', Goth. *þana* 'this' (acc.) [246, 247].

-ta (*-ta*, *-da*), *-tu* (*-du*, *-tu*), 'tibi, te', *-te* (*-ti*) 'tibi', *-tes* (acc. *-ti-in*) 'tuus', *tuk* (*tu-uk*) 'te, tibi' : Skt. *te*, Gk. *τοί* 'tibi', Lat. *tū*.

tarma(e)- (*tar-ma-iz-zi*, 3 pl. *tar-ma-a-an-zi*) : Lat. *termino* 'delimit'.

tarnai (*tar-na-a-i*) 'puts in' : Gk. *τερπαλω* 'pierce'.

taswanz (*ta-aš-wa-an-za*) 'blind' : Skt. *tamas*, *tamīsrā*, Lat. *tenebrae* 'darkness'.

tayezi (*ta-i-e-iz-zi*) 'steals' : Skt. *tāyus* 'thief', Gk. *τηράω* 'deprive of'.

trepzi (*te-ri-ip-zi*) 'ploughs' : Gk. *τρέπω* 'turn'.

westaras (*ú-e-eš-ta-ra-aš*) 'shepherd' : Av. *vāstar-* 'shepherd'.

weti (dat. *ú-it-ti*) [119a] 'year', *sawetesz* (*ša-ú-i-ti-iš-za*) 'of the same year' : Gk. *ἔτος* 'year', Lat. *vetus*, *vetustus* 'old'.

The ablative ending IH *tos/ts* appears always in Hittite in the zero grade form, and is written with a sign containing *z*; e.g. *askaz* (*a-aš-ga-az*, *a-aš-ka-az*) 'from the store-house, out', *utanaz* (*ud-da-na-az*) 'from *utar* 'word'.

The sentence connective *-za* is especially common after *nu* 'and', *-tu* 'tibi, te', *-mu* 'mihi, me' (*nu-za*, *nu-za-kán*, *-du-za*, *-du-za-kán*, *-mu-za*, *-mu-za-kán*). Since these combinations make up a large majority of all the occurrences of the word it is likely that its original form was **uza*, and that an incorrect analysis led to its use after other words; e.g. *man-za* (*ma-a-an-za*), *amuk-ma-za-kan* (*am-mu-uk-ma-za-kán*). It has a less frequent by-form *-z* (written *-az*, *-uz*, etc.), and **uz* was probably an ablative from the IH pronominal stem *we-*, *wo-*, *au-*, *u-*, and to be equated with Skt. *ud-*, *ut-* 'up, out', Goth. *us-* 'out from', *ūt* 'out' (see, Lang. 8. 10). Hittite *-za* may therefore be compared with Skt. and Av. *uta* 'and', which contains an appended particle, and this may be the same one that appears in Hittite *-za* beside *-z*. If so we must assume that IH had both *-uts* and *-uts-o*; when *uts* got its by-form *ut* the particle came to be used with either, and only the secondary *ut-o* survived in Indo-Iranian.

IH *t* survives in the personal endings of the 2 pl., e.g. *paiteni* (*pa-it-te-ni*) 'you go', *naisten* (*na-iš-tin*) 'lead ye'; of the pret. 3 s. of the *mi*-conjugation, e.g. *pait* (*pa-it*) 'he went'; of the midd. 3 s. (*ta* = Gk. *το*, *te* = Gk. *ται*, *tari* = Lat. *tur*); and of the midd. 3 pl. (*nta* = Gk. *ντο*, *ntari* = Lat. *ntur*).

118. Final *t* after a consonant is lost. The available evidence concerns only final *nt* and *st*; but if these groups required simplification it is unlikely that final *t* persisted after any consonant.

The neut. nom.-acc. s. of *nt*-stems has final *n*; e.g. *human* (*hu-u-ma-an*) from *humanz* 'all, whole', acc. *humantan* (*hu-u-ma-an-da-an*).

The pret. 3 s. of the *hi*-conjugation ends in *s*. This form is historically identical with the 3 s. of the IE *s*-aorist; hence Hittite *nais* (*na-a-iš*, *na-iš*) 'he led, turned, drove' = Skt. *naiṣ* 'he led' < IH *nēist*.

Other preterites from consonant stems show analogical restoration of

t; e.g. *est* (*e-eš-ta*) 'he was' [391]. Similarly postconsonantal *t* in a few instrumentals from consonant stems is a restoration; e.g. *kesart* (*ki-iš-šar-ta*) [197d].

119. IH *t* before *i* becomes Hittite *z* unless *s* precedes.

The personal ending of the 3 s. of the *mi*-conjugation is *zi* from *ti*; e.g. *paizi* (*pa-iz-zi*) 'he goes' : Skt. *eti*, Gk. *ἔσι*, Lat. *it* 'goes'. Similarly in the 3 pl. Hittite has *nzi* from *nti*; e.g. *asanzi* (*a-ša-an-zi*) 'they are' : Skt. *santi*, Dor. *ἐντι*, Osc. *sent*, Goth. *sind*.

kestanziyatat (*ki-iš-ta-an-zi-at-ta-at*) 'he was hungry' beside inst. *kestantet* (*ki-iš-ta-an-ti-it*) 'by hunger'; cf. *kasz* 'hunger' [113].

The suffix *zi* appears in Hittite *hantezis* (*ha-an-te-iz-zi-iš*) 'first' from IH *-i-tis* 'a going' (cf. Skt. *sam-i-tis* 'a coming together, a meeting'), *apezis* (acc. *ap-pi-iz-zi-in*) 'last', *sarazis* (*ša-ra-az-zi-iš*) 'highest'. There are several other words that seem to contain the same suffix [163]; at any rate they have *z* before the stem vowel *i*, and for our present purpose that is the important matter. The change of *t* to *z* was regular in all their zero grade forms and also in forms with lengthened grade [120].

119a. In inflectional systems *ti* is sometimes restored by analogy; e.g. *weti* (dat.) 'year', *hanti* (dat.) 'in front'.

120. IH *t* before *ē* becomes *z*.⁸⁷

The suffix *zel* of *sarnenkzel* (*šar-ni-ik-zi-il*, *šar-ni-ik-zi-el*) 'indemnification' and *tayazel* (*ta-ya-az-zi-il*) 'theft' : Lat. *sūtēla* 'a frame-up', *tūtēla* 'guardianship' [166].

zek (*zi-ik*) 'tu' must be connected with Lat. *tē*, Osc. *tiium*, *tiū* 'tu' [228].

121. Original *sti* remains in *talukasti* (*da-lu-ga-aš-ti*) 'length' beside pl. *talukaes* 'long', *palhasti* (*pal-ḫa-a-aš-ti*) 'breadth' beside *palhis*, *palhas* 'broad'. Several words whose etymology is unknown also show *sti*. Hence the *z* in the 3 s. of stems in *s* (*eszi*, *seszi*, etc.) must be analogical; *tamasti* (*da-ma-aš-ti*—KBo.5. 9. 2. 26) 'he presses, oppresses' is phonologically regular.

122. Pre-Hittite *kt* becomes *t*, written double, in *lutas* (acc. *lu-ut-ta-an*) 'window' beside *luk-* 'kindle', and in *utar* (*ut-tar*, *ud-da-a-ar*) 'word, affair' if this is to be connected with Goth. *waihts* 'affair' [68c].

th

123. The only IH voiceless aspirate yet recognized in Hittite is the *t* of the 2 s. endings of the *hi*-conjugation; e.g. *tati* (*da-at-ti*, *ta-at-ti*) 'thou

⁸⁷ Petersen, Lang. 6. 174.

takest', *tata* (*da-a-at-ta*, *da-at-ta*) 'thou didst take' : Skt. *dadātha* 'thou didst give', *sakti* (*ša-ak-ti*, *ša-a-ak-ti*) 'thou knowest', *sakta* (*ša-ak-ta*) 'thou didst know' : Goth. *sakt* 'thou didst see'. The inherited *ta* was specialized as a preterit ending, and a new form *ti* was formed with the usual vowel of primary endings. It appears from this single instance that IH *th* developed in the same way as IH *t*.

d

124. IH *d* becomes Hittite *t*; it is never written double [66]. Hittite *t* from *d* is written together with a following *s* as *z*. For the development of IH *dzd*, etc., see [126].

et-, *at-* (1 s. *e-it-mi*, 1 pl. *a-tu-e-ni*, 3 pl. *a-da-an-zi*, *a-ta-a-an-zi*, pret. 3 pl. *e-te-ir*, imper. 2 s. *e-it*, infin. *a-da-an-na*) 'eat', with suffix *sa* [358] *ezai* (*e-iz-za-a-i*, imper. 2 pl. *e-iz-za-at-tin*, 3 pl. *e-iz-za-an-du*), iterative-durative *azk-* (*az-zi-ki-iz-zi*) : Skt. *atti* 'eats', Gk. *ἐδομαι* 'will eat', Lat. *edo*, *est* 'eat'.

etas (*e-da-aš*) 'eius', *eti*, *etani* (*e-di*, *i-di*, *e-da-ni*) 'ei', etc. : Umbr. *eřek*, *erše* 'idem', Osc. *ekum* 'item', Lat. *ecce* 'voici'.

hantas (*ha-an-da-aš*, *ha-an-ta-aš*) 'firm, true', *hantiya-* (pret. 1 s. *ha-an-ti-ya-nu-un*) 'be loyal to', *hanta(e)-* (*ha-an-da-a-iz-zi*, 3 pl. *ha-an-da-a-an-zi*) 'establish' < IH *ho-nd-os*, etc. : IE *ned-* 'tie', Lat. *nōdus* 'knot', Goth. *nati* 'net'. For the formation of the Hittite and IH noun, cf. s. v. *hastwer* (below).

hapatis (acc. *ha-pa-a-ti-in*) 'vassal' : Gk. *ὀπηδός* 'attendant'.

hastwer (*ha-aš-du-ir*) 'boughs' (?) : Gk. *ῥῆος*, Goth. *asts* 'bough' < IH *ho-sd-os* : IH *sed-* 'sit'. The Hittite word contains a suffix that apparently has collective force; it is known only in nom.-acc., and so the declension is not certain. The same root appears in *prastus* (*pār-aš-du-uš*) 'sprout, shoot' < IH *pro-sd-us*.

kartis (gen. *kar-di-aš*, dat. *kar-di*, *ŠĀ-ta*) : Gk. *καρδία*, Lat. *cor*, *cordis* 'heart'.

petan (*pī-e-da-an*) 'place' : Gk. *πέδον*, Umbr. *peřum*, *persom-e* 'ground'.

spanti (*ši-pa-an-ti*) 'pours a libation', iterative-durative *spanzke/a-* (*ši-pa-an-za-ki-iz-zi*) : Gk. *σπένδω* 'pour a libation', Lat. *spondeo* 'promise'.

tai (*da-a-i*) 'takes' : Skt. *dadāmi*, Gk. *δίδωμι*, Lat. *do* 'give'.

talukaes (pl. *da-lu-ga-e-eš*) : Skt. *dīrghas*, Gk. *δολιχός*, ChSl. *dlъgъ* 'long'.

tamaszi (*ta-ma-aš-zi*, *da-ma-aš-zi*) 'presses, oppresses' : Skt. *damayati*, Gk. *δάμνημι*, *δαμάζω*, Lat. *domo* 'tame, subdue'.

tan (*ta-a-an*, *da-a-an*) 'iterum, second' : Lat. *dis*- 'in two directions, apart', OHG *zir*-, *zer*- 'apart'. In view of *twarnezi* < IH *dhw̥rnā*- [125], *tan* cannot be connected directly with IE *dwōu* 'two'; but the ablaut base of the latter word is *dewe*, and it may probably be analyzed *de-we*, the prior element of which may be the source of Hittite *tan*.⁸⁸

tankwis (*da-an-ku-i-iš*) 'black, dark' : Gk. *δνóπος* 'darkness'.

taru (dat. *ta-ru-ú-i*) 'wood' : Skt. *dāru* 'log', *dru*- 'wood', Gk. *δόρυ* 'tree, timber'.⁸⁹

tekusami (*te-ik-ku-uš-ša-mi*) 'I show' : Skt. *diśati*, *adikṣat*, Gk. *δεικνυμι*, *ἐδείξα* 'show', Lat. *dīco*, *dīxī* 'say'. The simpler form of the root appears in *tezi* (*te-iz-zi*, *te-e-iz-zi*) 'says' : Skt. *dīdyati*, *adīdet* 'shine', Gk. *δέεται* 'seem'.

watar (*wa-a-tar*) : Gk. *ῥδωρ*, Goth. *watō* 'water'.

watarnah- (*wa-tar-na-aḥ-zi*) 'communicate, command', *utar* (*ut-iar*, *ud-da-a-ar*⁹⁰) 'word' : Skt. *vadati* 'speaks, says', Gk. *αῖδῆ* 'voice'.

dh

125. IH *dh* becomes Hittite *t*; it is never written double [66]. Hittite *t* < *dh* is written together with a following *s* as *z*. For the development of IH *dzd*h, etc., see [126].

anturz (*an-dur-za*) 'within', *anturiyas* (*an-dur-ri-ya-aš*, pl. *an-tu-u-ri*-[*e-e*]š) 'situated within, native, domestic' < IH *n-dhur*- 'indoors' : Gk. *θύρα*, Lat. *forēs*, Welsh, OBret., Cornish *dor*, OHG *turi*, OE *duru*, Lith. *duris*, ChSl. *dvъri* 'door'. *anturz* is abl. from a consonant stem with prefixed *n*, zero grade of IH *en* 'in'.

hwarta- (1 s. *ḫu-u-wa-ar-daḥ-ḫi*, 3 s. *ḫur-da-i*, pret. *ḫu-wa-ar-ta-aš*, *ḫur-ta-aš*) 'curse', iterative-durative *hwrzk-* (*ḫur-za-ki-iz-zi*, verbal noun *ḫu-u-wa-ar-za-ki-u-wa-ar*), *hwrtais* (*ḫur-ta-a-iš*) 'a curse' : Lat. *verbum*, Goth. *waúrd* 'word', Lith. *vardas* 'name'.

it (*i-it*) 'go' (imper.) : Skt. *ihi*, Gk. *ἵθι* 'go' [395].

tehi (*te-eḥ-ḫi*) 'I place', 3 s. *tai* (*da-a-i*), iterative-durative *zkezi* (*zi-ik-ki-iz-zi*) : Skt. *dadhāti*, Gk. *τίθημι* 'place'.

tekan (*te-kán*, *te-e-kán*) : Gk. *χθών* 'ground' [113].

tepus (neut. *te-pu*, *te-e-pu*) 'small', *tepmu-* (pret. *te-ip-nu-ut*) 'make small, revile' : Skt. *dabhras* 'little', *dabhnōti* 'harms, deceives', Gk. *ἀτρέμω* 'harm'.

twarnezi (*du-wa-ar-ni-iz-zi*, *tu-wa-ar-ni-iz-zi*) 'breaks, breaks up' <

⁸⁸ Cf. AJP 48. 247-9.

⁸⁹ Ehelolf, OLZ 36. 7.

⁹⁰ For the double writing of the stop, see [68c].

IH *dhwernā-* [297]. The zero grade *dhwr-* became IE *dhru*, whence a new full grade *dhreu-*; Gk. *δρᾶω*, *δρῶπτω* 'break up', Lat. *frustum* 'fragment', Goth. *driusan* 'fall'.

utne (*ud-ne-e*) 'country' : Skt. *ūdhar*, Gk. *οὔθαρ* 'udder' [85].

wetezi (*u-e-te-iz-zi*) 'builds' < IH *we-dhēti* 'sets in place' : Gk. *τιθησι* 'places' [286].

Suffix *tar* of action nouns: IE *dhro-*; e.g. *asatar* (*a-ša-a-tar*, *a-ša-tar*) from *esa*, *esari* 'sits' [156].

tst, etc.

126. In IH two dental stops in immediate contact developed a sibilant between them, yielding *tst*, *tsth*, *dzd*, *dzdh*. None of the IE languages retain any of these groups, but Hittite retains *tst*, and, by the regular change of *d* and *dh* to *t*, shows *tst* for the other groups also, as far as they have been found. Here as elsewhere *ts* is written *z*, but *tsts* is written with from two to four *z*'s and a non-phonetic vowel, and *tst* is often written with a non-phonetic vowel and *š* after the *z* [69].

From *et-* (1 s. *e-it-mi*) 'eat' we have 3 s. *ezzi* (*e-iz-za-az-zi*, *e-iz-za-zi*, *e-za-az-zi*), 2 pl. *azteni* (*az-za-aš-te-ni*), pret. *ezt* (*e-iz-ta*). Final *zi* in 3 s. must be analogical [121].

Similar forms are citable from several other verbs with stems ending in a dental, but unfortunately their etymologies are unknown. From *hat-* (pret. 3 pl. *ha-a-te-ir*) 'dry up, wither' we have 3 s. *hazzi* (*ha-az-zi-iz-zi*) and pret. *hazt* (*ha-az-za-aš-ta*, *ha-a-az-ta*); from *mat-* 'endure, withstand'⁹¹ come 2 s. *mazti* (*ma-za-at-ti*), 3 s. *mazzi* (*ma-za-zi*, *ma-az-za-az-zi*), pret. 2 s. *mazt* (*ma-az-za-aš-ta*), 3 s. *mazt* (*ma-az-za-aš-ta*); from *spart-* (pret. 3 pl. *iš-pár-te-ir*) 'escape' may be cited 3 s. *sparzzi* (*iš-pár-za-zi*, *iš-pár-za-az-zi*) and pret. *sparzt* (*iš-pár-za-aš-ta*).⁹² Pret. 3 s. *hwezt* (*hu-e-iz-ta*—KUB 17. 10. 4. 1, 2) is of unknown meaning and derivation; its object seems to be SÍG 'wool', and it may be akin to *hwitiya-* (*hu-it-ti-e-iz-zi*) 'lead, draw'.

p

127. IH *p* remains in Hittite; it is normally written double between vowels, and sometimes a non-phonetic vowel is introduced into a consonant group to make possible the double writing of original *p* [66].

apa (*a-ap-pa*) 'behind, back, again' : Gk. *ἀπό* 'back, from'.

⁹¹ Sommer, AU 335.

⁹² There is also a stem *sparza-*, with suffix *sa* [358], from which come pret. 1 s. *sparzahun* (*iš-pár-za-aḥ-hu-un*), 3 pl. *sparzer* (*iš-pár-zi-ir*), and part. *sparzan* (*iš-pár-za-an*). None of the forms cited above can come from this stem.

- epzi* (*e-ip-zi*) 'takes, begins' : Skt. *āpnoti* 'takes', Lat. *coēpi* 'I began'.
- harpzi* (*har-ap-zi*, 3 pl. *har-pa-an-zi*) 'places' : Skt. *arpayati* 'throws, places'.
- lipanzi* (*li-pa-a-an-zi*, *li-ip-pa-an-zi*) 'they spread, smear' : Skt. *līmpati* 'smears', Gk. *λίπος* 'animal fat', *λιπαρός* 'oily', Lat. *lippus* 'blear-eyed'.
- pahwar* (*pa-aḥ-ḥu-wa-ar*), *pahur*⁹³ (*pa-aḥ-ḥur*, *pa-aḥ-ḥu-ur*) 'fire', dat. *pahweni* (*pa-aḥ-ḥu-e-ni*), *pahune* (*pa-aḥ-ḥu-ni*) : Toch. *por*, Gk. *πῦρ*, Umbr. *pīr*, Goth. *fōn*, OE *fȳr*.
- palhis* (acc. *pal-ḥi-in*) 'broad' : Skt. *pṛthuḥ*, Gk. *πλατύς* 'broad'.
- paparszi* (*pa-ap-pār-aš-zi*) 'sprinkles' : Toch. *papārs* 'er spritzte', Skt. *pṛṣat*, *pṛṣatam* 'drop of water', Czech. *přeti* 'sprinkle, drizzle, rain'.
- parhzi* (*pār-aḥ-zi*, *pār-ḥi-zi*, *pār-ḥa-zi*) 'drive' (trans. and intrans.) : Skt. *pīparti* 'carries across', Gk. *πέλω* 'pierce', *περάω* 'pass', Lat. *porto* 'carry', Goth. *faran* 'travel, go'.
- paszi* (*pa-a-aš-zi*), *pasi* (*pa-a-ši*) : Skt. *pāti* 'drinks', aor. midd. *pāsta*, Gk. *πίνω* 'drink', Lat. *pōsca* 'a mixed drink', ChSl. *pīja*, *pīti* 'drink'.
- petan* (*pī-e-da-an*) 'place' : Gk. *πέδον*, Umbr. *peṛum*, *persom-e* 'ground'.
- peta(e)-* (*pīt-ta-a-iz-zi*) 'flee, fly, fall', *petar* (*pīt-tar*) 'wing' : Gk. *πέτομαι* 'fly', Lat. *pelo* 'go to', Skt. *patram* 'wing'.
- pra* (*pa-ra-a*) 'forth, forward, before, besides' : Skt. *pra*, Av. *frā*, Gk. *πρό*, Lat. *prō*.
- septamas* (dat. *ši-ip-ta-mi-ya*) : Skt. *saptamas*, Lat. *septimus* 'seventh'.
- spai-*, *spiya-* (imper. *iš-pa-a-i*, pres. 3 pl. *iš-pī-ya-an-zi*) 'sate oneself' : Skt. *sphāyati* 'grows fat', ChSl. *speja*, *spěti* 'succeed'.
- spanti* (*ši-pa-an-ti*, *ši-ip-pa-an-ti*) 'pours a libation', *spantuzi* (*iš-pa-an-tu-uz-zi*) 'ladle' : Gk. *σπένδω* 'pour a libation', Lat. *spondeo* 'promise'.
- spariyezi* (*iš-pār-ri-ya-az-zi*, *iš-pār-ri-iz-zi*), *spari* (*iš-pa-a-ri*, pret. 1 s. *iš-pār-ra-aḥ-ḥu-un*) 'spreads, tramples' : Gk. *σπείρω*, *ἐσπαρκα*, *ἐσπάρην* 'scatter, strew, sow'.
- stapi* (*iš-tap-pī*, *iš-da-a-pī*) 'shuts in, stores away' : Skt. *sthāpayati* 'causes to stand'.
- trepzi* (*te-ri-ip-zi*) 'ploughs' : Gk. *τρέπω* 'turn'.
- upzi* (*u-up-zi*, pret. *u-up-ta*) (the sun) 'rises' : Skt. *upa* 'up, hither', Gk. *ὑπό* 'under'.

bh

128. IH *bh* becomes Hittite *p*; it is never written double [66].

alpas (*al-pa-aš*) 'cloud' : Gk. *ἀλφός* 'dull white leprosy', *ἀλφούς*·
λευκούς (Hesych.), Lat. *albus* 'white'.

⁹³ With *u* from certain oblique cases.

arpas (acc. *ar-pa-an*) 'bad luck', *arpwanz* (neut. *ar-pu-u-wa-an*, pl. *ar-pu-wa-an-te-es*) 'unlucky' : Gk. ὀρφανός 'orphan', Lat. *orbus* 'bereft', Goth. *arbi* 'inheritance', *arbaiþs* 'distress, toil'.

krap- (*ka-ra-a-pí*, pret. 3 pl. *ka-ri-e-pí-ir*) 'devour' : Skt. *grabh-* 'seize', Eng. *grab*.

nepes (*ne-pí-iš*) 'sky' : Skt. *nabhas* 'sky, cloud, mist', Gk. νέφος 'cloud', ChSl. *nebo*, *nebese* 'sky'.

pankus (*pa-an-ku-uš*) 'all, whole' : Skt. *bahuṣ* 'abundant, much', Gk. παχύς 'thick'.

parkwis (*pár-ku-iš*) 'pure' : Skt. *bhrājate* 'shines', Goth. *bairhts* 'bright'.

parkus (*pár-ku-uš*) 'high' : Arm. *barjr* (*u*-stem) 'high', Skt. *bṛhant-* 'high, great', Goth. *bairgahei* 'mountainous region'.

parsiya- (*pár-ši-ya-az-zi*, pl. *pár-ši-ya-an-zi*, midd. *pár-ši-ya*) 'break' (bread) : Gk. φάρος 'part', φάσαι·σχίσαι (EM).

pasilas (acc. *pa-aš-ši-la-an*, pl. *pa-aš-ši-lu-uš*) 'gravel' : Skt. *babhasti* 'crushes', *bhasma* 'ashes', Gk. ψῆφος 'pebble', ψάμμος 'sand'.

-pe (*-be*) [27, fn. 26] the particle of identity : Av. *bā*, an emphatic particle, Gk. φή 'as', Goth. *-ba* 'if', Lith. *ba* 'surely, of course'. The same Hittite particle is usually appended to the cardinal for 'two' when the latter means 'both';⁹⁴ e.g. *2-be*, *2-e-ta-aš-be*, *2-uš-be*; which justifies its connection with IE *bho-* of Goth. *bai*, Skt. *u-bhau*, Gk. ἄμφω, Lat. *am-bō* 'both'. It has long been customary to connect the second member of Gk. ἄμφω with the second member of ἄμφι, Skt. *abhi* 'around' (cf. ἄμφις, Skt. *abhitas* 'on both sides'); and that carries with it Goth. *bi* 'around, about, according to'. That is, we have here the same variation between *o*-stem and *i*-stem as in Lat. *quo-*, *qui-*. The verbal prefix *pe-* [283] must come from IH *bhe-* rather than *bhei-* if we connect *pe harzi* (*pí-e har-zi*) 'carries' with IE *bher(e)ti*, Skt. *bharati*, Gk. φέρει, Lat. *fert*, Goth. *batriþ* 'carries' [76].

tepus (neut. *te-pu*, *te-e-pu*) 'small', *tepnu-* (pret. *te-ip-nu-ut*) 'make small, revile' : Skt. *dabhras* 'small', *dabhnoti* 'injures, hurts'.⁹⁵

warpzi (*wa-ar-ap-zi*, *wa-ra-ap-zi*) 'washes' (especially with soap) : Goth. *af-swaírban* 'wipe off', OE *sweorfan* 'scrub', Welsh *chwerfu* 'whirl'.

⁹⁴ Friedrich, ZA NF 5. 57.

⁹⁵ Petersen, Lang. 9. 16, connects *tepnu-* 'make small' with Gk. ταπεινός, but the single writing of *p* in *tepus* makes that improbable.

129. IH *n* remains in Hittite.

anas (*an-na-aš*) 'mother', *hanas* (*ha-an-na-aš*) 'grandmother' (with prefix *ha*) : Gk. *ἀννίς* 'grandmother', Lat. *anus* 'old woman', OHG *ana* 'grandmother'.

hantas (*ha-an-da-aš*) 'fixed, loyal', *hanta(e)-* (*ha-an-da-a-iz-zi*) 'establish' < IH *ho-nd-* : IE *ned-* 'tie', Lat. *nōdus* 'knot'.

hanz (*ha-an-za*) 'front', *hanti* (*ha-an-ti*) 'in front, especially', *hantezis* (*ha-an-te-iz-zi-iš*) 'first' : Gk. *ἀντί* 'opposite', *ἀντα* 'face to face'.

haras (*ha-a-ra-aš*), gen. *haranas* (*ha-ra-na-aš*) 'eagle' : OHG *aro*, *arn* 'eagle', Gk. *ὄρνις* 'bird'.

henkzi (*hi-in-ga-zi*, *hi-ik-zi*, pret. *hi-en-ik-ta*) 'determines', *henkan* (*hi-in-kán*, *hi-en-kán*) 'fate, death, pestilence' : Gk. *ἀνάγκη* 'necessity'.

kanes- (*ga-ne-eš-zi*, *ga-ni-eš-zi*) 'find, favor' : Skt. (aor.) *akāniṣam* 'I was pleased, enjoyed'.

kank- (*ga-an-ki*, *ga-an-ga-i*) : OHG *hāhan*, OE *hōn* 'hang'.

kemanz (*gi-im-ma-an-za*) : Skt. *hemantas* 'winter'.

kenu (*gi-e-nu*) : Skt. *jānu*, Av. *žnu-*, Lat. *genū* 'knee'.

kwenzi (*ku-en-zi*) : Skt. *hanti* 'strikes, kills'.

lenkais (acc. *li-en-ga-in*) 'oath', *lenkzi* (*li-ik-zi*, *li-in-ga-zi*) 'swears' : Gk. *ἐλεγχος* 'test, disproof, reproach', *ἐλεγχω* 'examine, confute, put to shame'.

man (*ma-a-an*, *ma-an*) 'if, when, although; *ān*' : Gk. *μήν*, Dor. *μᾶν* 'truly, surely'.

nai (*na-a-i*) 'leads, turns, sends' : Skt. *nināya* 'he led'.

-nas (*-na-aš*) : Skt. *nas* 'us'.

nata (*na-at-ta*) 'not' < IH *nb-toi* : Skt. *na*, Lat. *ne-que*, Goth. *ni*, ChSl. *ne* 'not'.

nekumanz (*ne-ku-ma-an-za*) : Lat. *nūdus*, Goth. *naqaþs* 'naked'.

nekuz (*ne-ku-uš*) 'bed-time, evening' : Lat. *nox* 'night'.

nenk- (3 pl. *ni-in-kán-zi*) 'rise, get drunk', *nenenk-* (3 pl. *ni-ni-in-kán-zi*) 'raise, lift up, gather' : Skt. *naṣati* 'attains', Gk. *ἐνεγκεῖν* 'to carry', Lat. *nanciscor* 'get'.

nepes (*ne-pi-iš*) : Skt. *nabhas*, ChSl. *nebo* 'sky'.

newet (inst. *ne-e-u-il*) 'new', *newah-* (pret. 3 pl. *ne-wa-aḥ-ḥi-ir*) 'renew' : Gk. *νέος* 'new', *νῆαν* 'plough anew'.

nu, sentence connective : Skt. *nu* 'then, therefore, indeed, certainly'.

⁹⁶ Since the velar nasal is the result of assimilation, and since it is written in the same way as dental *n*, it is not given separate treatment. In Hittite, as in reconstructed IH words, *n* before a velar stop is to be read as the velar nasal.

sanh- (1 s. *ša-an-aḥ-mi*, *ša-an-ḥa-mi*, 2 s. *ša-an-aḥ-ti*, *ša-an-ḥa-ti*, 3 s. *ša-an-aḥ-zi*, *ša-an-ḥa-zi*, 2 pl. *ša-an-ḥa-te-ni*, 3 pl. *ša-an-ḥa-an-zi*, pret. 1 s. *ša-an-ḥu-un*, *ša-an-aḥ-ḥu-un*, 2 s. *ša-an-aḥ-ta*, 3 s. *ša-an-aḥ-ta*) 'peto' : Skt. *sanoti* 'acquires', *sanitṛ-* 'gaining, bestowing', Gk. *ἀνύω*, Cretan *ἀναμαι* 'perform'.

spanti (*ši-pa-an-ti*) : Gk. *σπένδει* 'pours a libation'.

tankwis (*da-an-ku-i-iš*) 'black, dark' : Gk. *δρόφος* 'darkness'.

3 pl. endings *anzi*, *anta* : IE *nti*, *nto*.

Participial suffix *nt*; e.g. *asant-* (nom. *a-ša-an-za*, *a-ša-a-an-za*, acc. *a-ša-an-ta-an*, pl. *a-aš-ša-an-te-eš*) : Skt. *sant-* 'being'.

The intensive suffix *na*; e.g. *sunai* (*šu-un-na-i*, *šu-un-na-a-i*) 'fills' beside *suwa(e)-* (*šu-wa-a-iz-zi*, 3 pl. *šu-u-wa-an-zi*) 'press out, fill'.

The causative suffix *nu*; e.g. *arnuzi* (*ar-nu-zi*, *ar-nu-uz-zi*) 'brings' : Skt. *ṛṇoti* 'moves, attains', beside *ari* 'arrives' and *artari* 'rises, starts, stands'.

n in Certain Consonant Groups

130. IH *mn* becomes Hittite *m*; like any other consonant, such an *m* may be written double.

memai (*me-ma-a-i*, *me-im-ma-i*) 'says' < IH *memnāi* : Dor. *μῆμᾶμαι*, Lat. *meminī* 'remember'.

mimai (*mi-im-ma-i*) 'refuses' : Gk. *μῖμνω*, *μειμένηκα* 'stay, tarry'. For the meaning, cf. Gk. *μῖμνων* 'ass', *μόνιμος* 'steadfast', of a soldier, Welsh *amynedd*, OIr. *ainmne* 'patience'.

stamaszi (*iš-ta-ma-aš-zi*, *iš-dam-ma-aš-zi*) 'hears' beside *stamar* (GEŠTUK-ar), inst. *stamant* (*iš-ta-ma-an-ta*) 'ear' : Gk. *στόμα* 'mouth'.

tarma(i)- (*tar-ma-iz-zi*) : Lat. *termino* 'delimit'.

Genitives of verbal nouns in *mar*; e.g. *arnumas* (*ar-nu-um-ma-aš*) beside nom.-acc. *arnumar* (*ar-nu-mar*) from *arnu-* 'bring' [161a].

That this change occurred fairly late in the history of Hittite is shown by the fact that it affects loan-words.⁹⁷

When *mn* occurs in our texts it is of secondary origin. Analogy is responsible for *lamnas* (*lam-na-aš*), gen. of *laman* 'name', and the denominative *lamniya*- (pret. *lam-ni-ya-at*).

131. IH *nm* becomes Hittite *m*, sometimes written *mm*.

emeya- (*im-mi-ya-az-zi*, *im-mi-ya-zi*, 3 pl. *im-mi-ya-an-zi*, *i-mi-ya-an-zi*, pret. 1 s. *i-mi-e-nu-un*) 'mix' < IH *en-meye/o-* : Skt. *mayate* 'exchanges', Gk. *μῑγνυμι*, Lat. *misceo*, Lith. *maišaũ*, *-yti* 'mix'.

⁹⁷ Friedrich, ZA NF 2. 313 f.; Götze, Madd. 130 f.

kwemi (*ku-e-mi*) : Skt. *hanmi* 'I strike, kill' beside 3 s. *kuenzi* (*ku-en-zi*) : Skt. *hanti* 'he strikes, kills'. The loss of *n* in 1 s. induced pret. 1 pl. *kwewen* (*ku-e-u-en*).

This change also is relatively recent, since it occurs before the enclitics with initial *m*; e.g. *sahamet* (*ša-aḥ-ḥa-mi-it*, *ša-aḥ-ḥa-me-it*—KBo. 6. 3. 2. 38, 44) 'my ground-rent', *lamamet* (*la-a-am-ma-a-mi-it*—KUB 1. 16. 3. 13) 'my name', *turamet* (*tu-ra-am-mi-it*—KBo. 3. 22. 1. 79) 'my team', *tuziman* (*tu-uz-zi-ma-an*—KUB 23. 11. 2. 22) 'my army', *ataman* (*ad-dam-ma-an*—KBo 3. 44. 9) 'my father', *saramasmas* (*šar-ra-ma-aš-ma-aš*—KUB 17. 35. 3. 11) from *saran-ma-smas*.

132. Pre-Hittite *tn* becomes Hittite *n*, usually written *nn*, in the oblique cases of polysyllabic verbal nouns in *tar*;⁹⁸ e.g. *apatar* (*ap-pa-a-tar*) 'a taking', gen. *apanas* (*ap-pa-an-na-aš*). It remains after the first vowel of the word in the oblique cases of *hwiṭar* (*ḥu-u-i-tar*) 'the animals', e.g. gen. *hwiṭnas* (*ḥu-it-na-aš*), inst. *hwiṭnet* (*ḥu-u-it-ni-it*), in *wetnas* (*ú-e-it-na-aš*—KUB 1. 16. 2. 46), gen. of *watar* 'water', and in *utne* (*ud-ne-e*, *ud-ni-e*, *ud-ni*) 'country'.

133. IH *ns* before a vowel becomes Hittite *nz*.⁹⁹

anzas (*an-za-a-aš*) 'us' < IH *ns* 'us' with a pl. ending from the *a*-stem nouns.

The unknown word for 'woman' is written with ideogram and phonetic complement, thus: nom. SAL-*za*, gen. SAL-*na-aš*; it must be an *n*-stem with nom. in *-nz* from earlier *-ns*.

The enclitic particle *-san* when appended to a word with final *n* developed *t* before it; e.g. *nanzan* (*na-an-za-an*) = *n(u)-an-san*. Occasional *-zan* after other sounds, as *nuzan* (*nu-za-an*), is due to an incorrect analysis of *nanzan* and the like.¹⁰⁰

Analogy frequently restored *ns*, particularly at the juncture of two words, and such an *n* is sometimes not written [57].¹⁰¹

134. Pre-Hittite *n* before *s* and another consonant was lost in *kwask-* (pret. *ku-wa-aš-ki-it*) < IH *kwn-sk-* beside *kwenzi* 'strikes, kills',¹⁰² and also in *taswanz* (*ta-aš-wa-an-za*) 'blind' < IH *tms-went-*, if we assume an intermediate stage **tans-want-* [97]. No doubt another example is to be seen in *hask-* (imper. 3 pl. *ḥa-aš-ši-kán-du*) from *hanai* (*ḥa-an-na-a-i*)

⁹⁸ Friedrich, ZDMG 76.162 fn. 2, ZA NF 5. 61 f.; Sommer, BoSt. 10. 30, 45; Tenner, KIF 1. 391 f.

⁹⁹ Sommer, BoSt. 7. 41 fn. 1, 10. 2; Petersen, AJP 51. 254 f.

¹⁰⁰ Otherwise Ehelolf, OLZ 36. 4.

¹⁰¹ I can do nothing with *hansatar* 'family'; see Götze, AOr. 2. 160.

¹⁰² Ehelolf, OLZ 29. 988 f.

'decides a lawsuit', although the history of the form is obscure, especially since *hanai* is *nai* 'leads, turns' with prefix *ha-*. Cf. [57].

135. Final *n* is occasionally omitted where no phonological reason appears; e.g. acc. *harnau* (*har-na-a-u*—KBo. 5. 1. 1. 7, 12, 31, 39), *a*-stem or *nt*-stem neut. nom. *marša* (*mar-ša*—KBo. 5. 2. 4. 64), *a*-stem neut. nom.-acc. *palha* (*pal-ḥa*—KUB 17. 6. 1. 6), *n*-stem masc. nom. *sumanda* (*šu-um-ma-an-za*—KUB 12. 58. 1. 21). Possibly we should include here *ara* in the phrase *nata ara* (Ü.UL *a-a-ra*) 'it is not done', but cf. [191].

The loss of *n* in such cases is surely analogical, and the most probable source is the acc. s. of consonant stems, where IH syllabic *m* probably yielded *a* [97], and IH *um* yielded *an*. No doubt phonetic loss of *n* before initial *m* and *s* was also a factor [131, 134]. Cf. [57].

m

136. IH *m* initial and medial remains in Hittite.

amuk (*am-mu-uk*) 'ego, me, mihi', *amel* (*am-me-el*, *am-mi-el*) 'mei', *ametaš* (*am-me-e-da-aš*, *am-me-e-da-za*) 'a me' : Gk. ἐμέ. -*me* (-*mi*) 'mihi', -*mes* (-*mi-iš*, -*me-iš*) 'my' : Skt. *me*, Gk. μοί, Lat. *mī fili* 'my son'.

ermas (acc. *ir-ma-an*) 'ill' : Gk. ἡρέμα 'gently, softly', Goth. *armōstai* (superl.) 'ἐλεεινότεροι'.

kemanz (*gi-im-ma-an-za*) : Skt. *hemantas*, Gk. χεῖμα, Lat. *hiems*, Lith. *žiemà* 'winter'.

laman (*la-a-ma-an*) 'name' : Lat. *nōmen* 'name'.

mai (*ma-a-i*) 'grows, is ripe, prospers', part. *meyanz* (*mi-ya-an-za*), midd. *meyari* (*mi-ya-ri*) : Skt. *mayas* 'comfort, pleasure', *medhas*, *miyedhas* 'sacrifice', Av. *myazda-* 'sacrificial meal', Lat. *mītis* 'mild, gentle, fruitful', Gk. μελιχίος 'gentle, mild'.

-*ma* : Thess. -μά 'however'.

maklant- (acc. *ma-ak-la-an-ta-an*) : Lat. *macer* 'thin, lean', Gk. μακρός 'long'.

malai (*ma-al-la-i*, 3 pl. *ma-al-la-an-zi*) 'grinds, breaks' : Lat. *molo*, Goth. *malan* 'grind'.

man (*ma-a-an*, *ma-an*) 'if, when, although; &v' : Dor. μᾶν 'truly, surely'.

mark- (3 pl. *mar-kán-zi*) 'cut up' a sacrificial victim : OE *meorh* 'sausage'.

mekis (*me-ik-ki-iš*) : Gk. μέγας, Lat. *magnus*, Goth. *mikils* 'great'.

melit (*mi-li-i*) : Lat. *mel*, Goth. *miliþ* 'honey'.

memai (*me-ma-a-i*, *me-im-ma-i*) 'says' : Gk. μῆμνημαι, Lat. *meminī* 'remember'.

mer- (pret. *me-ir-ta*, imper. 3 s. *me-ir-du*) : Lat. *morior* 'die'.

nekumanz (*ne-ku-ma-an-za*, *ni-ku-ma-an-za*) : Gk. γυμνός 'naked'.

septamas (dat. *ši-ip-ta-mi-ya*) : Skt. *saptamas*, Lat. *septimus* 'seventh'.

stamar (GEŠTUK-ar, inst. *iš-ta-ma-an-ta*), *stamanas* (pl. *iš-ta-a-ma-nu-uš*) 'ear' : Gk. στόμα 'mouth'.

sumanzan (*šu-um-ma-an-za*, acc. *šu-um-ma-an-za-na-an*) 'rope' : Skt. *syūman* 'band'.

tamaszi (*ta-ma-aš-zi*, *da-ma-aš-zi*) 'presses, oppresses' : Gk. δάμνημι 'work (metal), subdue'.

wemizezi (*ú-e-mi-ya-zi*, *ú-e-mi-e-zi*) 'comes upon, finds' : Lat. *venio* 'come', *invenio* 'find'.

The personal endings 1 s. *mi*, 1 pl. *meni*, *men* : IE 1 s. *mi*, 1 pl. *mes*, *me* [382, 385, 392].

137. IH final *m* becomes Hitt. *n*.

tekan (*te-kán*, *te-e-kán*) 'earth' : Skt. loc. *kṣami* 'on the ground', Gk. χθών, χθονός 'earth', χαμάλ 'on the ground', Lat. *humus* 'soil', Lith. *žėmė*, ChSl. *zemlja* 'earth'. In Hittite as in Gk. the analogy of the nom. has induced medial *n* in the oblique cases, as gen. *taknas* (*ták-na-aš*).

The nom.-acc. ending of *a*-stem neuters is *n*, e.g. *petan* (*pí-e-da-an*) 'place' : Gk. πέδον, Umbr. *peřum*, *persom-e* 'ground' [193].

The acc. s. masc. of all vowel stems ends in *n*; e.g. *mahlan* (*ma-aḥ-la-an*) : Lat. acc. *mālum* 'apple tree', *kwin* (*ku-in*) : Lat. *quem*, *pankun* (*pa-an-ku-un*, *pa-a-an-ku-un*) 'all, whole' : Skt. acc. *bahum* 'abundant, much' [192].

The personal ending of the pret. 1 s. is *un* or *nun* in the *mi*-conjugation and *hun* in the *hi*-conjugation; e.g. *esun* (*e-šu-un*) 'I was', *taskenun* (*da-aš-ki-nu-un*) 'I took', *tahun* (*da-aḥ-ḫu-un*, *da-a-aḥ-ḫu-un*) 'I took'. These endings do not correspond precisely to anything in IE, but their final *n* must somehow represent the secondary ending *m* [389].

r

138. Initial *r* does not occur in Hittite, and no words that in IE contained initial *r* have yet been discovered in our Hittite documents.¹⁰³

139. IH medial *r* remains in Hittite.

anturz (*an-dur-za*) 'within', *anturiyas* (*an-tu-u-ri-ya-aš*, *an-dur-ri-ya-aš*) 'dwelling within, native' < IH *n-dhur-* : Skt. *dvāras*, Gk. θύρα, Lat. *forēs* 'door'.

arszi (*ar-aš-zi*, *a-ar-aš-zi*) : Skt. *arṣati* 'flows', Gk. ἐξέρχω 'pour out'.

arha (*ar-ḫa*) 'away', *arhz* (*a-ra-aḥ-za*) 'outside' : Skt. *āre* 'afar', *ārāt* 'from afar'.

¹⁰³ Friedrich, Hethitisch 26, and references.

- ark-* (verbal noun *ar-ku-u-wa-ar*) : Lat. *arceo* 'shut in, ward off'.
arsaniya- (pret. *ar-ša-ni-ya-at*) : Skt. *irasyati* 'envy', OE *eorsian*, *yrsian* 'wish ill'.
arwa(e)- (*a-ru-wa-a-iz-zi*) 'bow down' : Gr. ἀράσσει 'pray, curse'.
ermas (acc. *ir-ma-an*) 'ill' : Gk. ἡρέμα 'gently, softly', OIsl. *armr*, OE *earm* 'poor'.
haras (*ha-a-ra-aš*), gen. *haranas* (*ha-ra-na-aš*) : OHG *aro*, *arn* 'eagle'.
harkis (*har-ki-iš*) 'white, bright' : Skt. *arjunas* 'white', Gk. ἀργός 'shining'.
harpzi (*har-ap-zi*) 'places' : Skt. *arpayati* 'throws, places'.
kari (dat. *ka-a-ri*) 'concession', *kariya-* (midd. pret. 1 s. *ka-ri-ya-aḥ-ḥa-at*) 'yield, concede' : Gk. χάρις 'grace, favor', χαίρω 'be glad'.
kateras (abl. *kat-te-ir-ra-az*, pl. *kat-te-ir-ra-aš*) 'lower'; cf. Skt. *adharas*, Lat. *inferus* 'lower', Goth. *undarō* 'under'.
kwerzi (*ku-ir-zi*, *ku-e-ir-zi*) 'cuts off', 3 pl. *kuranzi* (*ku-ra-an-zi*) : *curtus* 'mutilated'. *karszi* (*kar-aš-zi*) 'cuts off' : Gk. ἀκροσεκόμης 'long-haired'.
kutrus (gen. *ku-ut-ru-aš*) 'witness' : Lat. *quattuor*.
mer- (pret. *me-ir-ta*) : Lat. *morior* 'die'.
mark- (3 pl. *mar-kán-zi*) 'cut up' (a sacrificial victim) : OE *meorh* 'sausage'.
paparszi (*pa-ap-pár-aš-zi*) 'sprinkles' : Skt. *prṣat* 'drop of water', Czech. *pršetí* 'sprinkle, drizzle, rain'.
parkwis (*pár-ku-iš*) 'pure' : Goth. *bairhts* 'bright'.
pe harzi (*pí-e har-zi*) : Lat. *fert* 'carries'.
pra (*pa-ra-a*) 'forth, forward, before, besides' : Gk. πρό, Lat. *prō*.
spariyezi (*iš-pár-ri-ya-az-zi*, *iš-pár-ri-iz-zi*) 'spreads, tramples' : Gk. σπείρω 'scatter, strew, sow'.
tarmaezi (*tar-ma-iz-zi*) : Lat. *terminat* 'delimits'.
taru 'wood' : Skt. *dāru* 'log', Gk. δένδρον 'tree'.
wakari (*wa-aq-qa-a-ri*) 'is lacking' : Lat. *cariēs* 'decay'.
warpzi (*wa-ar-ap-zi*, *wa-ra-ap-zi*) 'washes' (especially with soap) : OE *sweorfan* 'scrub'.

Midd. endings *ari*, *tari*, *ntari*, etc. : Lat. *tur*, *ntur*, etc. [420].

140. IH final *r* remains in Hittite.

kurur (*ku-u-ru-ur*, *ku-ru-ur*) 'hostile, hostility' : Skt. *krūras* 'wounded, bloody, cruel'.

The personal ending of the pret. 3 pl. *er*, e.g. *awer* (*a-ú-e-ir*, *a-ú-ir*) 'they saw', *arnwer* (*ar-nu-e-ir*, *ar-nu-ir*) 'they brought', *eter* (*e-te-ir*) 'they ate' : Lat. *ēre* (*amāvēre* 'they loved', *dīxēre* 'they said'), Skt. *ur*

(*bubodhur* 'they were awake', *dadur* 'they gave'), Av. *arə* (*vaonara* 'they strove for') [412]. Although the IE languages imply either final *ər* or *ēr* + vowel, Hittite requires final *ēr*; there is no convincing evidence for the loss in Hittite of any original final vowels.

Final *ar* of nouns frequently represents original syllabic *r* [98], but original *ōr* is more probable in *pahwar* (*pa-aḥ-ḥu-wa-ar*) 'fire' : Gk. *πῦρ* and in *watar* (*wa-a-tar*) 'water' : Gk. *ὕδωρ*, since both words have reduced grade of the first syllable.

l

141. IH *l* remains in Hittite.

alis (acc. *a-li-in*) 'white', *alpas* (*al-pa-aš*) 'cloud' : Lith. *alvas* 'tin', Lat. *albus* 'white'.

lai (*la-a-i*, 3 pl. *la-a-an-zi*, pret. 1 s. *la-a-u-un*) : IE *leu-*, Gk. *λῶ*, Lat. *solvo* 'loose, unharness' [366]. If Hittite *luzi* (*lu-uz-zi*) 'impost, tax to be paid in goods or labor' belongs to this root, the IE diphthong would seem to be original [163].

lahwi (*la-a-ḥu-i*, *la-a-ḥu-u-i*, *la-ḥu-i*), *lahwai* (*la-a-ḥu-wa-i*, *la-ḥu-u-wa-i*, *la-ḥu-u-wa-a-i*) 'pours' : Gk. *λῶ*, *λοῶ*, Lat. *lavo* 'wash' (base *loheu-*, *lohewā-*). For the semantic connection, cf. the practice of pouring water over the hands to wash them.

laki (*la-a-ki*) 'causes to fall', *lakari* (*la-ga-a-ri*) 'lies', *saleka* (*ša-li-ga*, *sa-li-i-ga*) 'lies with' : Gk. *λέχος*, Lat. *lectus* 'bed', Goth. *līgan* 'lie'.

lenkais (acc. *li-en-ga-in*) 'oath', *lenkzi* (*li-ik-zi*, *li-in-ga-zi*) 'swears' : Gk. *ἐλεγχος* 'test, disproof', *ἐλέγχω* 'examine, confute'.

lipanzi (*li-pa-a-an-zi*, *li-ip-pa-an-zi*) 'they smear' : Skt. *limpati* 'smears', Gk. *λίπος* 'animal fat'.

lukzi (*lu-uk-zi*) 'kindles', *lukata* (*lu-uk-kat-ta*) 'day dawns' : Lat. *lūceo* 'shine'.

malai (*ma-al-la-i*) 'grinds, breaks' : Lat. *molo* 'grind'.

melit (*mi-li-it*) : Lat. *mel*, Goth. *miliþ* 'honey'.

salis (*šal-li-iš*) 'great' : Skt. *sarvas*, Gk. *ὅλος*, Lat. *sollus* 'whole, entire'.

s, z

142. IH *s* remains in Hittite, and *z* becomes *s*. When Hittite *t* of any origin precedes *s* the two sounds are written together as *z* [61].

anzas (*an-za-a-aš*) 'us' < IH *ns* 'us' with a plural ending from the *a*-stem nouns [133], *-nas* (*-na-aš*) : Skt. *nas* 'us'.

arszi (*ar-aš-zi*) : Skt. *aṛṣati* 'flows'.

- arsaniya-* (pret. *ar-ša-ni-ya-at*) : Skt. *irasyati* 'envy'.
arskezi (*a-ar-aš-ki-iz-zi*) 'comes' : Skt. *rcchati* 'goes'.
auszi (*a-uš-zi*) 'sees' : Skt. *uṣās*, Gk. *ἔως*, Lat. *aurōra* 'dawn'.
azkezi (*az-zi-ki-iz-zi*) 'eats', *et-*, *at-* 'eat' with suffix *ske/a-* [335].
esmi (*e-eš-mi*) : Skt. *asmi* 'I am'.
eshar (*e-eš-ḥar*) : Skt. *asṛk* 'blood'.
eshas (*iš-ḥa-a-aš*, dat. *eš-ḥe*) : Lat. *erus* 'master'.
hastai (*ḥa-aš-ta-i*) 'bones' : Skt. *asthi*, Gk. *ὀστέον*, Lat. *os* 'bone'.
hastwer (*ḥa-aš-du-e-ir*, *ḥa-aš-du-ir*) 'boughs' < IH *ho-zd-* : Gk. *ὄσος*, Goth. *asts* 'bough'. *prastus* (*pār-aš-du-uš*) 'shoot, sprout' < IH *pro-zd-*.
hveszi (*ḥu-i-iš-zi*) 'lives' : Skt. *vasati*, Goth. *wisān* 'tarry, dwell'.
kaneszi (*ga-ne-eš-zi*) 'finds, favors' : Skt. *akāniṣam* 'I was pleased, I enjoyed'.
karszi (*kar-aš-zi*) 'cuts off' : Gk. *ἀκροσκόμης* 'long-haired'.
kesa (*ki-i-ša*), *kesari* (*ki-ša-ri*) 'becomes' : Skt. *śeṣan*, aor. subj. 3 pl. from *ṣi-* 'lie'.
kestari (*ki-iš-ta-ri*) 'is quenched' : Goth. *qistjan* 'destroy', Lith. *gestù*, *gesaũ*, *gèsti* 'be quenched'.
nepes (*ne-pi-iš*), gen. *nepesas* (*ne-pi-ša-aš*) : Skt. *nabhas*, gen. *na-bhasas*, ChSl. *nebo*, *nebese* 'sky'.
paparszi (*pa-ap-pār-aš-zi*) 'sprinkles' : Skt. *prṣat* 'drop', Czechish *pršeti* 'sprinkle, drizzle, rain'.
paszi (*pa-a-aš-zi*), *pasi* (*pa-a-ši*) 'drinks' : Skt. midd. aor. *pāsta* 'he drank'.
saklais (*ša-a-ak-la-iš*) 'rite, custom, law' : Lat. *sacer* 'sacred'.
sakwa (*ša-a-ku-wa*, *ša-ku-wa*) 'eyes', *saki* (*ša-ak-ki*) 'knows' : Goth. *saihan* 'see'.
salis (*šal-li-iš*) 'great' : Skt. *sarvas* 'whole, entire'.
sanhzi (*ša-an-aḥ-zi*) 'petit' : Skt. *sanoti* 'acquires'.
-se (*-ši*, *-še*) 'sibi, se, ei, eum', *-ses* (*-ši-iš*, *-še-ša*¹⁰⁴) 'suus, eius', neut. *-set* (*-ši-it*, *-še-it*) < IH *soi* : Av. *-hōi*, *-he*, OP *-šaiy* 'eius, ei'; IE *-se*, Gk. *σφέ*, Lat. *sē*, Goth. *sik*, OPr. *sebbei*.
septamas (dat. *ši-ip-ta-mi-ya*) : Skt. *saptamas*, Lat. *septimus* 'seventh'.
seszi (*še-eš-zi*) : Skt. *sasti* 'sleeps'.
shai (*iš-ḥa-a-i*) 'binds, levies (troops) upon' : Skt. *siṣāya* 'he bound'.
spai (*iš-pa-a-i*) 'sate yourself' : Skt. *sphāyati* 'grows fat'.
spani (*ši-pa-an-ti*, *ši-ip-pa-an-ti*) : Gk. *σπένδει* 'pours a libation'.
spariyezi (*iš-pār-ri-ya-az-zi*, *iš-pār-ri-iz-zi*) 'spreads, tramples' : Gk. *σπείρει* 'scatters, strews'.

¹⁰⁴ Hrozný, SH 132.

stamar (inst. *iš-ta-ma-an-ta*) 'ear' : Gk. *στόμα* 'mouth'.

stanta(e)- (pret. *iš-ta-an-ta-it*) 'tarry' : Lat. *sto* 'stand'.

suhai (*šu-uh-ḥa-a-i*, *šu-uh-ḥa-i*) 'empties, sprinkles', *suhās* (dat. *šu-uh-ḥi*, *šu-u-uh-ḥi*, *šu-uh-ḥa*, abl. *šu-uh-ḥa-az*, pl. *šu-uh-ḥu-uš*) 'roof' : Toch. B *suwaṃ* 'it rains', *swese* 'rain', Gk. *ῥεῖ* 'it rains'. The long vowel of Gk. *ῥεῖ* is due to the pre-IE lengthening upon loss of *h* before a consonant; IH *suh-yo* > IE *sū-yo-* [103b].

sumanzan (*šu-um-ma-an-za*, acc. *šu-um-ma-an-za-na-an*) 'rope' : Skt. *syūman* 'band'.

suwa(e)- (*šu-wa-a-iz-zi*, 3 pl. *šu-u-wa-an-zi*) 'press out, fill', *sunai* (*šu-un-na-i*, *šu-un-na-a-i*) 'fills' : Skt. *sunoti* 'presses out'.

taswanz (*ta-aš-wa-an-za*) 'blind' : Skt. *tamas*, *tamisrā* 'darkness'.

wasi (*wa-a-ši*) 'buys', *usniya-* (*uš-ša-ni-ya-zi*, *uš-ni-ya-zi*) 'sell' : Skt. *vasnas* 'price'.

wesanta (*ú-e-eš-ša-an-ta*) 'they clothe themselves' : Skt. *vaste* 'he clothes himself'.

westaras (*ú-e-eš-ta-ra-aš*) : Av. *vāstar-* 'shepherd'.

zkezi (*zi-ik-ki-iz-zi*) 'places', zero grade of *tai-* 'place' (: IE *dhē-*) and the suffix *ske/a-* [335].

Various case endings contain inherited *s*; e.g. nom. *huhas* (*ḥu-uh-ḥa-aš*) 'grandfather', *harkis* (*ḥar-ki-iš*) 'white', *pankus* (*pa-an-ku-uš*) 'all, whole', *nekuz* (*ne-ku-uz*) 'evening', *kemanz* (*gi-im-ma-an-za*) 'winter' [191]; gen. *wetas* (*ú-e-te-na-aš*) 'of water' [194]; abl. *askaz* (*a-aš-ka-az*, *a-aš-ga-az*) 'from the store-house', *perz* (*E-ir-za*) 'from the house' [196].

The personal endings of the 2 s. of the *mi*-conjugation contain inherited *s*; pres. *paisi* (*pa-a-i-ši*, *pa-i-ši*) 'you go', *yasi* (*i-ya-ši*) 'you make', pret. *hatraes* (*ḥa-at-ra-a-eš*) 'you wrote' [383, 390].

s Movable

143. In pre-IH *s* was extremely common both as an initial and as a final sound, and the collision of final with initial *s* must have been frequent. Apparently *s* was often lost in such groups, although the precise conditions can no longer be discovered; possibly the groups consonant + *s* + *s* and *s* + *s* + consonant were simplified, and the remaining *s* might be felt with either word.

143a. In the IE languages the existence of alternative forms either with or without initial *s* before a consonant has long been recognized; e.g. Gk. *κείρω* beside OE *sceran*, *scieran* 'cut, shear', Gk. *(σ)τέγος* 'roof', Skt. *(s)tāyus* 'thief', Skt. *paśyati* 'sees' but perf. *paspāse*. Hittite adds several forms without *s*, as *kwerzi* (*ku-ri-zi*, *ku-e-ir-zi*) 'cuts off',

tayezi (*ta-a-i-iz-zi*, *ta-a-i-e-iz-zi*) 'steals', *titanuzi* (*ti-it-ta-nu-zi*, *ti-it-ta-nu-uz-zi*) 'causes to stand, places' beside *stanta(e)*- (pret. *iš-ta-an-ta-it*) 'tarry' : IE *stā*- 'stand', *-ma* 'however' : Skt. *-sma*. A similar relationship is to be recognized in Lat. *sub*, *super* beside Skt. *upa*, *upari*, and in Gk. *ὄσσε* 'eyes', *ὄμμα* 'eye', *ὄψομαι* 'I will see', Lat. *oculus* 'eye' beside Hittite *sakwa* (*ša-a-ku-wa*, *ša-ku-wa*) 'eyes', *sakwa(e)*- (part. *ša-a-ku-wa-an*) 'see', Goth. *saihan* 'see'.

143b. At least a part of the IE masc. and fem. nominatives singular without final *s* are due to the same cause. Hittite retains original *ts* (written *z*) in the nom. s. of all dental stems; e.g. *neku^z* (*ne-ku-uz*) 'evening', *kartimiyaz* (*kar-tim-mi-ya-za*, *kar-tim-mi-az*) 'anger', *sawetesz* (*ša-a-ú-i-te-eš-za*, *ša-ú-i-ti-iš-za*) 'of the same year', *kemanz* (*gi-im-ma-an-za*) 'winter', *asanz* (*a-ša-an-za*, *a-ša-a-an-za*) 'being'. The final *s* of Av. *haurvatās* 'salvation', Gk. *ὁλότης* 'wholeness', and Lat. *sacerdōs* 'priest' is the regular development of IH final *ts*, but Skt. *pāt* 'foot', *marut* 'storm demon', etc. come from the IH sentence doublet with loss of *s*.

143c. The IH ablative suffix was *ts*, zero grade of *tos*, and this survives in the Hittite ablative ending *z* (e.g. *askaz* 'from the store-house'), in IE ablatives from all stems except *o*-stems, and in a number of adverbs, such as Gk. *ὄτῳ* beside *ὄτῳ*; Gk. *ἐξ*, Lat. *ex* beside Gk. *ἐκτός*, Gk. *ἐνς* beside *ἐντός*, Lat. *sus-* beside *subtus*, Gk. *ἀμφίς* beside Skt. *abhitas*, Gk. *πάρος* and Skt. *puras* beside *puratas*, Skt. *bahiṣ* instead of **bahitas*, Hitt. *arh^z* (*a-ra-aḥ-za*) 'outside', *antur^z* (*an-dur-za*) 'within', *kateraz* (*kat-te-ir-ra-az*) 'below', *anaz* (*an-na-az*) 'formerly'. The IH sentence doublets with final *t* have yielded the IE *o*-stem ablatives, as Skt. *dānāt*, OLat. *dōnōd*, Delphian *οἴκῳ* 'from the house', and also the Hittite instrumentals in final *t*, as *teshet* (*te-eš-ḫi-it*), *zeyantet* (*zé-e-ya-an-te-it*), *kanut* (*ga-nu-ut*), *kesart* (*ki-iš-šar-ta*).

*h*¹⁰⁵

144. Since Hittite is at present our sole witness for IH *h*, we cannot tell whether or not the sound ever existed in places where our Hittite documents do not preserve it. At any rate Hittite *h* seems to have been as vigorous and as firmly fixed as any sound in the language [62].

¹⁰⁵ Marstrand, Car. 144, 160, traced Hittite *h* to IE *gh* in part. Hrozný, Congr. 1. 159, considered it a glide of secondary development, and Petersen, AJP 53. 199, holds that this is one of several sources of the sound. My former suggestion, Lang. 3. 109-122, that initial *bh* > Hittite *h* has been withdrawn, JAOS 50. 125-8. Kurylowicz, Symb. Gramm. 95-104, derives the sound from IE *ə*; I have set down my reasons for disagreeing with him in Lang. 6. 149-58.

Since IH *h* is not preserved in any IE language, it must have been lost during the pre-IE period.

arha (*ar-ḥa*) 'away', *arhi* (*ar-ḥi*) 'on the farm', *arh̥z* (*a-ra-aḥ-za*) 'outside, around' : Skt. *āre* 'afar', *ārāt* 'from afar'.

eshar (*e-eš-ḥar*) : Skt. *asṛk*, Gk. *ἔαρ* 'blood'.

eshas (*iš-ḥa-a-aš*, dat. *eš-ḥe*) : Lat. *erus* 'master'.

hanz (*ḥa-an-za*) 'front', *hanti* (*ḥa-an-ti*) 'in front, especially, separately', *hantezis* (*ḥa-an-te-iz-zi-iš*) 'first' : Gk. *ἀντί* 'opposite', *ἄντα* 'face to face'.

haras (*ḥa-a-ra-aš*), gen. *haranas* (*ḥa-ra-na-aš*) : OHG *aro*, *arn* 'eagle', Gk. *ἄρνις* 'bird'.

harkis (*ḥar-ki-iš*) 'white, bright' : Gk. *ἀργός* 'shining', Skt. *arjunas* 'white'.

harpzi (*ḥar-ap-zi*) 'places, lays' : Skt. *arpayati* 'throws, places'.

hastai (*ḥa-aš-ta-i*) 'bones' : Skt. *asthi*, Gk. *ὀστέον*, Lat. *os* 'bone'.

henkzi (*ḥi-in-ga-zi*, *ḥi-ik-zi*) 'determines', *henkan* (*ḥi-in-kán*, *ḥi-en-kán*) 'fate, death, pestilence' : Gk. *ἀνάγκη* 'necessity'.

huhas (*ḥu-uḥ-ḥa-aš*) : Lat. *avus* 'grandfather'.

hwek-, *huk-* (*ḥu-u-e-ik-zi*, 3 pl. *ḥu-u-kán-zi*) 'conjure' : Skt. *vakti* 'speaks', part. *uktas*.

hweszi (*ḥu-i-iš-zi*) 'lives', *hwesus* (neut. *ḥu-u-e-šu*) 'alive, raw' : Skt. *vasati* 'tarries, dwells'.

hwrtai (*ḥur-da-i*, pret. *ḥu-wa-ur-ta-aš*) 'curses', *hwrtais* (*ḥur-ta-a-iš*) 'curse' : Lat. *verbum*, Goth. *waúrd* 'word'.

lahwi (*la-a-ḥu-i*), *lahwai* (*la-a-ḥu-wa-i*, *la-ḥu-u-wa-i*) 'pours' : Gk. *λόω*, Lat. *lavo* 'wash'.

pahwar (*pa-aḥ-ḥu-wa-ar*), *pahur* (*pa-aḥ-ḥur*, *pa-aḥ-ḥu-ur*) : Gk. *πῦρ*, Goth. *fōn*, OE *fȳr* 'fire'.

palhis (acc. *pal-ḥi-i-in*, neut. *pal-ḥi*) : Skt. *prthuṣ*, Gk. *πλατύς* 'broad'.

shai (*iš-ḥa-a-i*) 'binds, levies (troops) upon' : Skt. *syati*, perf. *siṣāya* 'bind'.

suhai (*šu-uḥ-ḥa-a-i*) 'empties sprinkles', *suhas* (dat. *šu-uḥ-ḥi*) 'roof' : Gk. *ῥεῖ* 'it rains'.

The prefix *ha-* < IH *ho-* : Gk. *ὁ-*; e.g. *hapatis* (acc. *ḥa-pa-a-ti-in*) 'vassal' : Gk. *ὀπηδός* 'attendant, squire'; *hastwer* (*ḥa-aš-du-e-ir*, *ḥa-aš-du-ir*) 'boughs, brush-wood' : Gk. *ὄζος*, Goth. *asts* 'bough' [149, 282].

145. Apparently IH *h* is lost in Hittite between *s* and *n*.

esnas (*e-eš-na-aš*, *iš-na-aš*),¹⁰⁶ genitive of *eshar* (*e-eš-ḥar*) 'blood'. The

¹⁰⁶ Ehelolf, OLZ 30. 29.

nom. s. *esar* (*e-eš-šar*), which Ehelolf reports from Bo. 2072. 3. 9, is an analogical creation on the basis of *hanesar/hanesnas*, etc.

145a. That *h* is not always lost between consonants is indicated by various forms of the verbs *parhzi* (*pár-aḥ-zi*, *pár-ḫi-zi*, *pár-ḫa-zi*), *sanhzi* (*ša-an-aḥ-zi*, *ša-an-ḫa-zi*), *tarhzi* (*tar-aḥ-zi*, cf. pret. 1 s. *tar-aḥ-ḫu-un*, *tar-ḫu-un*), *walhzi* (*wa-al-aḥ-zi*, *wa-la-aḥ-zi*, cf. 3 pl. *wa-al-ḫa-an-zi*), unless analogy has restored *h* in these forms. A possible instance of *h* between consonants in a noun stem is *eshru* (*e-eš-ḫa-aḥ-ru*, gen. *iš-ḫa-aḥ-ru-wa-aš*) 'tears'. I suggest that IH *eshru* 'tears' yielded IE *esru*, and that, by contamination with the equivalent IE *dakru*, yielded Skt. *aśru*, Av. *asrū-*, Lith. *ašarà* 'tears'. But the Hittite word may be *eshahru* < IH *eshahru*, which became pre-IE *eshru* by haplology.

CHAPTER IV

NOUNS AND ADJECTIVES

I. WORD-FORMATION¹

Composition

146. Noun compounds in Hittite are few² and mostly of secondary origin. Aside from the compounds with adverbial prior member [149], the clearest compound of a type known in IE is the defective noun *akukalet* (inst. *a-ku-ga-al-li-il*), the designation of a silver vessel in which water is brought for washing the hands. It must be a pitcher, and the word is surely composed of *aku-* 'water' (: Lat. *aqua*, although the stem usually functions as a verb in Hittite) and *-kal* 'pour' (: Skt. *galati* 'drips', *gālayati* 'pours' [115]). The word obviously belongs to one of the most familiar and primitive IE types, and may be said to establish the system of noun-compounds for IH. One may be almost equally sure that *tayukas* (*ta-a-i-ú-ga-aš*, *da-a-i-ú-ga-aš*, *ta-a-ú-ga-aš*) 'two years old' beside *yukas* (*i-ú-ga-aš*) 'one year old' is a compound whose prior member is akin to *tan* (*ta-a-an*, *da-a-an*) 'iterum, second'; but our ignorance of the etymology and primary meaning of the second member makes its classification impossible. Similarly there is no doubt that the second member of *walkesaras* (*wa-al-kiš-ša-ra-aš*) 'skillful' is *kesar* (*ki-eš-šar*) 'hand', but the meaning and etymology of the prior member are unknown.³

147. Among the stereotyped phrases that have attained the status of compounds may be mentioned *tan petas* (*da-a-an pi-e-da-aš*) 'of second rank,' whence acc. *tan petan* (*da-a-an pi-e-da-an*) and *tan petasah-* (pret. 3 pl. *ta-a-an pi-e-da-aš-ša-aḥ-ḫi-ir*) 'make of second rank'; and perhaps *harwasi petan* (*ḫar-wa-a-ši pi-e-da-an*) 'secret'.⁴ Here belong two phrases

¹ A satisfactory account of Hittite noun formation can scarcely be written in the present state of our knowledge. Nevertheless a few observations are possible that may be useful in the meantime.

² Ehelolf, ZA NF 2. 318; Friedrich, ZA NF 5. 36.

³ Hrozný, SH 40 fn. 3, and Holma, JSFO 33. 31 f., suggested a connection with Lat. *valeo*, but that was plausible only so long as the compound was supposed to mean 'strong'. A factor in the problem is the variant *ulkesarah-* (pret. 3 pl. *ul-ki-eš-ša-ra-aḥ-ḫi-ir*) for the denominative verb *walkesarah-* 'make expert'.

⁴ If Sommer's, BoSt. 7. 40 fn. 2, 45, explanation is correct.

containing the dual number, *hasa hanzasa* (*ha-aš-ša ha-an-za-aš-ša*) 'grandson (and) great grandson' (?), and *huha hanes* (*hu-uḫ-ha ha-an-ni-iš*) 'grandfathers (and) grandmothers', on which see [184]. The word *petarpalhis* (*pit-tar-pal-ḫi-iš*) 'broad of wing', the name of the oracle bird, is probably a stereotyped phrase with an accusative of specification in the first member. A genuine compound should contain the stem-form in *n*; and besides, as Friedrich⁵ pointed out, a possessive compound should have the adjective in the prior position. The word or stereotyped phrase *lelaneyanz* (*li-e-la-ni-ya-an-za*) is very obscure,⁶ but it is probably connected in some way with the gen. *lelas* (*li-e-la-aš, li-la-aš*),⁷ which seems to designate some kind of a festival, and with the primitive of *leliwanz* (*li-li-wa-an-za*, acc. *li-e-li-wa-an-da-an*). I suggest that we analyze *lela neyanz* and see in the latter word the part. of *nai* 'lead, drive, turn'.⁸

Reduplication

148. Reduplication is fairly common in Hittite and it belongs to the noun as well as to the verb [288-290]. Unfortunately most of the words which seem to contain it are etymologically obscure; the time has not yet come for a satisfactory treatment of the subject. The inherited *kwis kwis* (*ku-iš ku-iš*) = Lat. *quisquis* belongs in the chapter on Pronouns [255], but may be mentioned here. Similar in the extent of the repeated material are *karsikarsiyaz* (*kar-ši-kar-ši-ya-za*—KUB 9. 34. 3. 44) 'in very truth' beside *karsis* 'free, frank, clear' and *karsi* 'the truth', and *wariwaran pahur* (*wa-ri-wa-ra-an, ú-ri-wa-ra-an* [46]) 'burning fire' beside *war-* 'burn'. More normal from the point of view of the IE languages are *memal* (*me-ma-al*) 'meal' beside *malai* 'grinds, breaks', and *tetanas* (acc. *te-e-da-na-an* pl. *te-e-ta-nu-uš*) 'hair', which may possibly be connected with Lat. *tenuis* 'thin' and *tendo* 'stretch', although the consistent writing of a single *t* between vowels is against it [66].

It is not worth while to do more than list some of the other words that appear to contain reduplication: *akwakwas* (*a-ku-wa-ku-wa-aš*) 'frog' or 'toad',⁹ *halhaltumaris* (dat. *ḫal-ḫal-tu-u-ma-ri*, pl. *ḫal-ḫal-tu-ma-ri-e-š*) 'cornerstone' or the like, *harharas* (acc. *ḫar-ḫa-ra-a-an*, dat.

⁵ ZA NF 5. 36.

⁶ Cf. Sayce, JRAS 1930, 308. 4.

⁷ Cf. Hrozný, BoSt. 3. 10. 43; KUB 9. 15. 2. 24.

⁸ KUB 17. 10.2. 33: ^D*Te-li-pi-nu-uš li-e-la-ni-ya-an-za ú-it*, 'Telepinus, enticed to the festival, came'; ib. 4. 4: ^D*IM-aš li-e-la-ni-ya-an-za ú-iz-zi*, 'the storm god, enticed to the festival, comes'.

⁹ Carruthers, Lang. 6. 160.

har-ḥa-ra-i), some kind of a vessel, *huhartiš* (acc. *ḥu-ḥar-ti-in*), a part of the body, *huhupal* (*ḥu-u-ḥu-pa-al*, *ḥu-ḥu-pa-al*), a musical instrument played by striking it and so shaped that a liquid may be drunk from it, *kakapas* (acc. *ga-ag-ga-pa-an*, pl. *ka-aq-ga-pu-uš*), something by means of which one may be driven away, *kalkalturi* (*gal-gal-tu-u-ri*), a musical instrument, *kunkunuziš* (*ku-un-ku-nu-uz-zi-iš*) 'diorite', *kuskusuli* (*ku-uš-ku-uš-šu-ul-li*) 'mixer, mixing bowl' beside *kuskuszi* 'mixes', *lulu* (*lu-ú-lu*, *lu-lu-ú*) 'prosperity', *pupuli* (*pu-pu-ul-li*) 'a ruin'(?), *purpuras* (acc. *pu-u-ur-pu-ra-an*, pl. *pur-pu-ru-uš*, *pu-u-úr-pu-ri-e-eš*) 'lump, mass'(?), *sesarul* (inst. *še-ša-ru-li-it*) 'strainer' beside *sesaresk-* 'strain, filter', *taptapas* (*tap-ta-ap-pa-aš*) 'bird's nest'(?), *tititan* (acc. *ti-i-ti-ta-an*) 'nose', *tutumeli* (*du-ud-du-me-li*, *du-ud-du-mi-li*) 'secretly, silently' beside *tutumes-* 'become deaf' and *tutumiyanz* 'deaf', *wantewantemas* (*wa-an-te-wa-an-te-ma-aš*) 'warmth, anger, lightning' beside *wantemas* 'warmth' and *wantes-* 'become warm'.^{9a}

Prefixes

149. Two prefixes occur in nouns as well as in verbs. Both have similar functions in IE.

The prefix *sa-* < IH *sm-* appears in *sawetesz* (*ša-ú-i-ti-iš-za*) 'of the same year' beside dat. *weti* (*ú-it-ti*) : Gk. *ἔτος* 'year'; cf. Gk. *ἄλσος* 'wife', *ἀδελφός* 'brother'. *sakwis* (*ša-ku-iš*) and *sakuni-* (gen. *ša-ku-ni-ya-aš*, dat. *ša-ku-ni-ya*) 'well, spring' may get the prefix from related verb-forms such as *sakunesk-* 'gush' beside *kuskuszi* 'mixes'. For *sa-* as a verbal prefix, see [285].

The prefix *ha-* < IH *ho-* appears in *hanas* (*ḥa-an-na-aš*) 'grandmother' beside *anas* (*an-na-aš*) 'mother'; *hantas* (*ḥa-an-da-aš*) 'fixed, loyal' < IH: *ho-nd-* : Lat. *nōdus* 'knot', Goth. *nati* 'net'; *hantais* (*ḥa-an-da-iš*) 'heat'¹⁰ beside *anz* 'hot'; *hapatis* (acc. *ḥa-pa-a-ti-in*) 'vassal' : Gk. *ὀπηδός* 'squire'¹¹ beside *πηδάω* 'leap'; *hastwer* (*ḥa-aš-du-e-ir*, *ḥa-aš-du-ir*) 'boughs, brush-wood' : Gk. *ῥζος*, Goth. *asts* 'bough'. For *ha-* as a verbal prefix, see [282].

^{9a} Edgerton calls my attention to the existence of such formations in Pāli; e.g. *galagalāyati* 'roars', *phalāphala* 'all sorts of fruit', *kalakalam* (also Skt.) 'a confused murmur'.

¹⁰ Friedrich, IF 49, 230 fn. 1.

¹¹ It is no longer possible to connect these words and Gk. *ὀπάων* with Hittite *paizi* 'goes', as I did in Lang. 4. 164 f.; for *paizi* comes from IH *bhe-eiti*. The evidence for the presence of the prefix is thus considerably weakened, but that remains the probable analysis of the two words whatever one may think of their connection with *πηδάω*.

Action Nouns

150. Hittite is particularly rich in suffixes forming action nouns; they are *ais*, *l*, *ur*, *an*, *t*, *tar*, *sar*, *war*, *mar*, *want*, *mant*, *zi(s)*, *asti(s)*, *mas*. As in other languages action nouns readily develop on the one hand into infinitives and on the other into concrete nouns of various sorts. We shall include in our treatment words which show either of these developments, and also several complex suffixes which in actual use do not form action nouns at all.

ais

151. Lengthened grade in nom. and acc. is characteristic of a number of action nouns with suffixal *i*, although lengthened grade is by no means confined to this group of *i*-stems, and although zero grade occasionally takes the place of lengthened grade even here. In the IE languages *i*-stem verbal nouns require in the radical syllable zero grade (Skt. *dr̥śiṣ* 'vision'), *o*-grade (Lat. *torris* 'fire-brand'), or lengthened grade (Gk. *δῆρις* 'battle', Goth. *wēns* 'hope'), and the Hittite material falls easily into these ablaut grades. Some of the words are derived from root-verbs, others from derivative or denominative verbs, and in other cases the only related verbs may be considered as derived from the abstract nouns in *ais*.

hukmais (*ḫu-uk-ma-iš*) 'magic, incantation' beside *hukmatalas* (pl. *ḫu-uk-ma-tal-li-[e-eš]*) 'magician', *hwek-*, *huk-* 'conjure'; *hurnais* (acc. *hur-na-a-in*) 'spray' (?) beside *hurn-* (3 pl. *hur-na-an-zi*) 'sprinkle' (?); *hwrtais* (*hur-ta-a-iš*) 'curse' beside *hwrtai* (*hur-da-i*, pret. *ḫu-wa-ar-ta-aš*, *hur-ta-aš*) 'curses'; *lazais* (*la-az-za-iš*) 'health, favorable condition' beside *laziyata* (*la-a-az-zi-at-ta*, *la-az-zi-at-ta*) 'is well, is favorable'; *lenkais* (acc. *li-in-ga-in*, gen. *li-in-ki-ya-aš*, *li-en-ki-aš*) 'oath' beside *lenkzi* (*li-ik-zi*, *li-in-ga-zi*) 'swears'; *sakais* (*ša-ga-a-iš*) 'omen' beside *saki* (*ša-ak-ki*) 'knows'; *shamais* (acc. *iš-ḫa-ma-in*), *shamis* (*iš-ḫa-mi-iš*) 'song' beside *shamatalas* (pl. *iš-ḫa-ma-tal-li-eš*) 'singer', *shamiya-* (3 pl. *iš-ḫa-mi-ya-an-zi*) 'sing'; *wastais* (*wa-aš-ta-iš*) 'injury, sin' beside *wasta-* (*wa-aš-ta-a-i*, *ú-wa-aš-ta-i*, pret. *wa-aš-ta-aš*) 'do harm, sin'; *zahais* (*za-aḫ-ḫa-iš*), *zakis* (acc. *za-aḫ-ḫi-in*) 'battle' beside *zah-* (1 pl. *za-aḫ-ḫu-u-e-ni*, 3 pl. *za-ḫa-an-zi*) 'fight'. We seem to have the same suffix in *hantais* (*ḫa-an-da-iš*) 'heat' beside *anz* 'hot', [149].

al, *el*, *ul*, *ulas*

152. Action nouns are formed with suffixes consisting of *l* and a preceding vowel, generally *u*. The IE languages contain one clear

instance of a suffix *el*; IE *sāwel*, Skt. *svar*, Gk. *ἥλιος*, Lat. *sōl* 'sun' beside IE *swen-*, Av. *xwəng*, Goth. *sunno*, OE *sunna* 'sun'. The suffix *lo-*, *lā-* is fairly frequent, but does not approach the meaning seen in the Hittite derivatives.

asul (nom.-acc. *a-aš-šu-ul*), *asulas* (*aš-šu-la-aš*, acc. *a-aš-šu-la-an*) 'favor, kindness' beside *asus* (*a-aš-šu-uš*) 'good, kind, favorable', *asiya-* (verbal noun *a-aš-ši-ya-tar*) 'love'; *sesarul* (inst. *še-ša-ru-li-it*) 'strainer, filter'¹² beside *sesaresk-* (imper. 2 pl. *še-ša-ri-iš-ki-tin*) 'strain, filter'; *shiul* (*iš-ḫi-ú-ul*) 'agreement, contract', *shiyal* (*iš-ḫi-ya-al*, *iš-ḫi-al*) 'girdle' beside *shiya-* (3 pl. *iš-ḫi-ya-an-zi*) 'bind'; *suwel* (*šu-ú-e-el*, *šu-ú-i-il*) 'cord' beside *sumanzan* (*šu-um-ma-an-za*) 'cord'; *taksul* (*ták-šu-ul*) 'peace, friendship' beside *taks-* (*ták-ki-eš-zi*, *ták-ki-eš-zi*, infin. *ták-šu-wa-an-zi*) 'join';¹³ *warsul* (dat. *wa-ar-šu-li*) 'propitiation' beside *wars-* (*wa-ar-ši*, *wa-ar-aš-zi*) 'propitiate'; *wastul* (*wa-aš-túl*, *wa-aš-du-ul*) 'injury, sin' beside *wasta-* (*wa-aš-ta-a-i*) 'do harm, sin'.

ur

153. Three action nouns show a suffix *ur*, which is almost as unlike anything in IE as we have found Hittite *ul* to be. And yet one of the three must be closely connected with an Indo-Iranian adjective; *kurur* 'hostility, hostile' cannot be separated from Skt. *krūras* 'bloody, cruel' and Av. *xrūra-* 'bloody, terrible'.

aniur (*a-ni-ú-úr*, *a-ni-u-ur*) 'performance, rite' beside *aniya-* (*a-ni-ya-zi*) 'perform'; *kurur* (*ku-u-ru-ur*, *ku-ru-ur*) 'hostility' beside *kwer-*, *kur-* (*ku-ir-zi*, *ku-e-ir-zi*, 3 pl. *ku-ra-an-zi*) 'cut'; *parsur* (*pár-šu-u-ur*) 'bread crumbs' beside *pars-* (*pa-ar-ši*) 'break'.

an¹⁴

154. A few neuter *n*-stems seem to function as action nouns. In IE such nouns are usually concrete in their meaning and the suffix is secondary. There are infinitives with nasal suffix in Indo-Iranian, Gk., and Germanic, but the nasal is preceded by another formative element.

aniyan (acc. *a-ni-ya-an*) 'performance'¹⁵ beside *aniya-* (*a-ni-ya-zi*) 'perform'; *henkan* (*ḫi-in-kán*, *ḫi-en-kán*) 'fate, death, pestilence' beside *henk-* (*ḫi-ik-zi*, *ḫi-in-ga-zi*) 'determine'; *parkan* (*pár-kán*) 'atone-

¹² If the word belongs here it has suffered semantic change; so *shiyal*, *swel*.

¹³ For the adjective *taksul*, see [181].

¹⁴ Götze, Hatt. 55, 91.

¹⁵ This accusative has been supposed to belong to an *a*-stem, but in view of the other words in our list an *n*-stem is far more likely. See Weidner, Stud. 60.

ment' beside *parkuis* (*pár-ku-iš*) 'clean'; *nahan* (*na-aḥ-ḥa-a-an*, *na-aḥ-ḥa-an*) 'fear, reverence' beside *nah-* (1 s. *na-aḥ-mi*) 'fear'; *lenkan* (inst. *li-in-kán-ta*) = *lenkais* [151]; *lenkanas* (pl. *li-in-ga-nu-uš*) 'oath' seems to contain a thematic form of the suffix. One may suspect original action nouns with suffix *an* in *kusan* (*ku-uš-ša-an*, *ku-ú-ša-an*) 'price' beside *kusata* (*ku-ú-ša-ta*) 'bride price'; and in *sahan* (*ša-aḥ-ḥa-an*) 'ground rent', especially if it goes with *sanḥ-* (*ša-an-aḥ-zi*, *ša-an-ḥa-zi*) 'petere'.

*t*¹⁶

155. The use of *t* to form action nouns is clear in IE; e.g. Skt. *stut* 'hymn', Lat. *salus* 'safety'. In Hittite the suffix, while not so common as several others, is used freely with derivative and denominative as well as root-class verbs. One word with suffix *t* is common to Hittite and IE, namely *nekuz* (*ne-ku-uz*) 'undressing, bedtime' : IE *nokt-* 'night'.

anīyaz (*a-ni-ya-az*, gen. *a-ni-ya-at-ta-aš*) 'performance, report' beside *anīya-* (*a-ni-ya-zi*) 'perform'; *hantaz* (gen. *ḥa-an-da-at-ta-aš*) 'truth' beside *hanta(e)-* (*ḥa-an-da-a-iz-zi*) 'establish', *hantas* (*ḥa-an-ta-aš*) 'firm, true'; *karsaz* (dat. *kar-ša-at-ti*) 'a cutting off' (?)¹⁷ beside *kars-* (*kar-aš-zi*) 'cut off'; *kartimīyaz* (*kar-tim-mi-ya-za*, *kar-tim-mi-az*, *kar-di-mi-ya-az*) 'anger' beside *kartimīya-* (pret. 1 s. *kar-tim-mi-ya-nu-un*) 'be angry'; *manīyahīyaz* (dat. *ma-a-ni-ya-aḥ-ḥi-ya-at-ti*) 'jurisdiction' beside *manīyah-* (1 s. *ma-a-ni-ya-aḥ-mi*), *manīyahesk-* (*ma-ni-ya-aḥ-ḥi-eš-ki-iz-zi*) 'govern'; *nahsaraz* (acc. *na-aḥ-ša-ra-at-ta-an*) 'fear, reverence' beside *nahsariya-* (*na-aḥ-ša-ri-ya-az-zi*), *nahsaresk-* (supine *na-aḥ-šar-ri-iš-ki-u-an*) 'fear', *nahsarnu-* (pret. *na-aḥ-šar-nu-ut*); *sarlaz* (acc. *šar-la-at-ta-an*) 'exaltation, praise' beside *sarla(e)-* (pret. *šar-la-a-it*) 'lift, exalt, praise'; *tuskaraz* (gen. *tu-uš-ka-ra-at-ta-aš*, dat. *du-uš-qa-ra-ti*) 'joy' beside *tuskara-* (infin. *tu-uš-ga-ra-an-na*) 'enjoy'; *warsīyaz* (gen. *wa-ar-ši-ya-at-ta-aš*) 'propitiation' beside *warsiya-* (*wa-ar-ši-ya-zi*) 'appease'. Perhaps *kasz* 'hunger' belongs here, although no verb stem *kas-* is citable [113].

The suffix *t* appears also in *sawetesz* (*ša-ú-i-ti-iš-za*) 'of the same year' beside dat. *weti* (*ú-it-ti*) 'year'; cf. Lat. *vetustus* beside *vetus* 'old'.

*tar*¹⁸

156. The suffixes *tar* and *sar* are used chiefly to form verbal nouns from intransitive verbs, especially medio-passives. They also do not

¹⁶ Götze, Madd. 78-9.

¹⁷ Sommer, AU 227 fn. 2.

¹⁸ Hrozný, SH 72-7; Delaporte, Gramm. 28-30; Götze, Hatt. 93 f., 95, Madd. 81 fn. 1, 94 f.

correspond closely to anything in IE. One thinks most naturally of the abstracts in *trom* (e.g. Skt. *śrotram* 'hearing', OE *beorðor* 'partus'), but the consistent writing of Hittite *tar* with a single *t* makes such an equation impossible [66]. There remains the partially equivalent IE suffix *dhro-* (e.g. Gk. *ἄρθρον* 'joint', *βάθρον* 'base', Lat. *crībrum* 'sieve'). The Hittite words in *tar* are *r/n* stems although the IE languages retain no trace of the nasal. From *utar* 'word' we have gen. *utanas* (*ud-da-na-aš*) and other oblique cases to match, and from *hwitar* 'the animals' there is a gen. *hwitnas* (*ḫu-it-na-aš*) and an. inst. *hwitnet* (*ḫu-it-ni-it*); from other dissyllables in the group no oblique cases are citable. In the polysyllables the oblique cases show a change of *tn* to *n* [132].

A large majority of the words in *tar* and all those of relatively recent origin have *a* before the suffix, so that for the period of our documents one should rather speak of a suffix *atar*. It is nevertheless clear that the *a* is a secondary accretion, and that originally the suffix was *tar*. The development of the suffix *sar* [160] can be understood only if this is so, and there are besides a few words containing *tar* without a preceding *a*.

hwitar or rather *hwetar* (*ḫu-u-i-tar*) 'the animals' may belong with IE *wē-* 'blow, breathe', Skt. *vāti*, Gk. *ἄημι*. *itar* (*i-tar*—Bo. 2072. 1. 20) probably means 'τὸ ἰέναι' and belongs with *i-* (imper. *i-it*, pl. *i-it-tin*) 'go'.¹⁹ *kuptar* (*ku-up-tar*—KBo. 6. 3. 2. 55 = Code §44) and the verb *kup-* (pret. *ku-up-ta*—KBo. 3. 6. 3. 64)²⁰ are both of uncertain meaning, but both apply to some sort of malicious injury; no doubt they belong together. *utar* (*ut-tar*) 'word, affair' contains suffix *tar* whether we connect it with IE *wed-* 'speak' or with IE *wek-*, Goth. *wahts* 'affair' [122].

atar

157. The common suffix *atar* must have got its initial vowel from stems in final *a*. In view of the affinity of the suffix for the medio-passive one thinks first of such forms as *esa*, *esari* 'sits' beside *eszi* 'sets', from which we actually meet *asatar* (*a-ša-a-tar*). Similar is *uwatar* or *watar* (*ú-wa-tar*) 'review' beside midd. pret. 1 s. *uwahat* (*ú-wa-aḫ-ḫa-at*) 'I was seen' but act. *uhun* (*u-uḫ-ḫu-un*). The denominatives in *a(e)-* < IH *āyo* contributed some forms such as *hantatar*

¹⁹ Forrer, RHA 1. 146, translates 'den Weg'; no doubt he thinks of Lat. *iter*, but the single *t* argues against that identification.

²⁰ For *kuptar* see most recently Walther ap. J. M. Powis Smith, The Origin and History of Hebrew Law 254. For *kupta* see Friedrich, KfF 1. 288 and fn. 3; Götze, AOr. 2. 157. 24.

(*ha-an-da-a-tar*, *ha-an-ta-tar*) beside *hanta(e)-* (*ha-an-da-a-iz-zi*, midd. *ha-an-da-it-ia-a-ri*) 'determine' and *sulatar* (*šu-ul-la-tar*) 'anger' beside *sula(e)-* (pret. *šu-ul-la-a-it*) 'quarrel'.²¹ Owing to its frequent occurrence with such denominatives the suffix seems to have been appended directly to noun and adjective stems (cf. Lat. *consul* : *consulatus* on the model of *iūdex* : *iūdicāre* : *iūdicātus*). At any rate we meet *ermatar* (dat. *ir-ma-ni*) beside *ermas* 'ill', *italawatar* (dat. *i-da-la-u-wa-an-ni*) beside *italus* 'bad', *kururatar* (dat. *ku-ru-ra-an-ni*) beside *kurur* 'hostile',²² *palhatar* (*pal-ha-tar*) 'breadth' beside *palhis*, *palhas* 'broad', *uskeskatalatar* (dat. *uš-ki-iš-ga-at-tal-la-an-ni*) beside *uskeskatalas* 'guard',²³ although no corresponding verbs are citable.

ana, *ani*, *anas*²⁴

158. Case forms of the suffix *atar* form medio-passive infinitives. The most frequent ending of this sort is the dative *ana* (e.g. *har-kān-na* from *hark-* 'go to ruin, be destroyed'), whose final *a* is to be explained in the same way as that of *takna* (*tāk-na-a*) beside *takni* (*tāk-ni-i*) 'on the ground' [195d]. Less frequent are regular dative forms in *ani* (e.g. *i-da-la-u-an-ni*). The forms in *anas* are perfectly transparent genitives of nouns in *atar*, and need be mentioned here only on account of their parallelism to the active infinitives in *was* and *mas* [161].

watar

159. A still longer suffix *watar* developed from an incorrect analysis of such words as *uwatar* and *italawatar*. It appears in *asiyawatar* (inst. *a-aš-ši-ya-u-wa-an-ni-it*) = *asiyatar* (*a-aš-ši-ya-tar*) beside *asiya-* 'love', and perhaps in *ishasarwatar* (*iš-ha-aš-šar-wa-tar*, inst. *iš-ha-aš-šar-wa-ni-it*).²⁵

*sar*²⁶

160. When the suffix *tar* was appended to verb stems in final *s* the regular change of *tn* to *n* [132] in the oblique cases yielded the consonant group *sn*. Then analogy produced a new nom.-acc. in *sar*; e.g. on the model of gen. *sesnas* a new nom. *sesar* was formed, and this supplanted **sestar*.

²¹ Götze, Madd. 95 f.

²² Sommer, AU 324.

²³ Götze, Madd. 108.

²⁴ Sommer, BoSt. 7. 54-6, AU 324; Friedrich, Vert. 1. 175-7; Götze, NBr. 28-32.

²⁵ Friedrich, ZA NF 5. 77; Sommer, AU 258.

²⁶ Hrozný, SH 71 f.; Delaporte, Gramm. 27 f.; Götze, Madd. 62 f.

asesar (*a-še-eš-šar*, dat. *a-še-eš-ni*) 'assembly' beside *asas-*, *ases-* (*a-ša-a-ši*, 3 pl. *a-še-ša-an-zi*) 'set, cause to sit'; *sesar* (*še-eš-šar*) 'lair' of wild beasts(?) besides *ses-* (*še-eš-zi*) 'sleep'; *parkwesar* (Götze, Madd. 63 fn. 1, cites "*parkuweššar*" without reference) 'purification' beside *parkwes-* (*pár-ku-e-eš-zi*, *pár-ku-eš-zi*) 'become pure'; *upesar* (*up-pi-eš-šar*) 'a sending, something sent' beside *upest* (*up-pi-eš-ta*), preterit of *upa-* (1 s. *up-pa-aḥ-ḥi*) 'send'.

Since the pret. 3 s. of *hi*-conjugation verbs in *a* is frequently made from a stem with final *es*, it is not strange that action nouns in *esar* (< *es-tar*) are particularly common beside such verbs.²⁷ It is owing to the incompleteness of our material that I cannot cite actual preterit forms in *es* beside action nouns in *esar* except in the case of *upesar*. It is a fair inference, for example, that *hanesar* (*ḥa-an-ni-eš-šar*, *ḥa-an-ne-eš-šar*) 'justice, law-suit', beside *hana-* (*ḥa-an-na-a-i*, 3 pl. *ḥa-an-na-an-zi*) 'litigate, decide a law-suit', is based upon a pret. 3 s. **hanest*.

The suffix *esar* was extended to other verbs also. The transfer to the denominatives in *a(e)* was made easy by several identical verb-forms from *a*-stems of the *hi*-conjugation and *a(e)*-stems (pl. *-aweni*, *-anzi*; *-awen*, *-aer*), and also by the existence of parallel denominatives in *es* and in *a(e)*; e.g. *parkwes-* 'become pure, be acquitted' and *parkwa(e)-* 'be pure'; hence *hatresar* 'order' beside *hatra(e)-* 'write', *tarupesar* 'assembly' beside *tarupa(e)-* 'assemble', etc. The suffix spread even further to such cases as *kuresar* (*ku-ri-eš-šar*) 'a cutting, strip of cloth' beside *kwer-*, *kur-* 'cut'. Occasionally *esar*, like *atar*, seems to form derivatives from adjectives, as in *palhesar* (dat. *pal-ḥi-eš-ni*) 'breadth' from *palhis* 'broad'.

More difficult is the suffix *sar* from *ya*-verbs; e.g. *hatriyasar* (*ḥa-at-ri-ya-šar*) 'command' beside *hatriya-* 'write' (cf. *hatresar* 'command'), *sakiyasar* (dat. *ša-ki-aš-ni*) 'omen' beside *sakiya-* (*ša-ki-ya-zi*) 'give an omen'.²⁸

*war, mar*²⁹

161. The commonest type of action noun is formed by the suffix *war* and its variant *mar* [110]. Many IE infinitives are case forms of stems

²⁷ Götze, Madd. 62 f.

²⁸ *spantuziysar* (inst. *iš-pa-an-du-uz-zi-ya-aš-ša-ri-it*—KUB 25. 36. 5. 7) and *spantuzesar* (*iš-pa-an-tu-uz-zi-eš-šar*—KUB 20. 87. 1. 10, *iš-pa-an-tu-uz-zi-šar*—KBo. 4. 9. 2. 51) 'dipper, ladle' present a similar problem; but both form and meaning indicate that the suffix is not ours.

²⁹ Hrozný, SH 77–80, 90–2; Delaporte, Gramm. 30; Friedrich, ZA NF 1. 9–15, 5. 70, Vert. 1. 45; Götze, Hatt. 66–8, 140.

containing the suffix *wer, wen* (*mer, men*); e.g. Vedic *dāvane*, Cypr. *δῶφεναι* 'to give'; Av. *staomaine* 'to praise', Homeric *δόμηναι*, Thess. *δομεν* 'to give'. There are besides a few verbal nouns, such as Skt. *parvan-* 'knot': Gk. *πεῖραρ* 'end' < **πέρραρ*, Gk. *εἶδαρ* 'food' < **ἐδραρ*, *λῦμαρ*, *λῦμα* 'offscourings'.

161a. A peculiarly close connection with the verb system is as evident in Hittite as in IE. Aside from nom.-acc. our documents show us only two case forms, and both of these are markedly stereotyped in form and in meaning. The gen. *was, mas* preserves no trace of the *n* which should appear in an oblique case, and so its real nature was at first not recognized. The suffix form *mas*, however, is the regular development of *mnas* [130] (**arumnas* 'of washing' > *arumas*, written *ar-ru-um-ma-aš*). The gen. in *was* is analogical (*arumar* : *arumas* = *turiyawar* : *turiyawas*). This gen. often gains a quasi-gerundival force; *memiyasma kwis yawas* 'what thing is of doing' comes to mean 'what thing is to be done'. It may be, therefore, that *nu IKRIBI.ḪI.A-ma kwes sarnenkwas* (*ku-i-e-eš šar-ni-in-ku-e-eš*—KBo. 2. 2. 4. 8) 'what prayers are to be recited in atonement' and 2 NINDA.KUR₄.RA TUR.MEŠ *hwesawas* (*ḫu-u-wi-ša-u-e-eš*—KUB 17. 12. 2. 9) 'bread of life' (?) contain analogical plurals beside gen. *sarnenkwas* (*šar-ni-in-ku-wa-aš*) and *hwesawas* (*ḫu-u-i-ša-wa-aš*) reinterpreted as nom. s. It is possible, however, that these words are survivals of the IH genitive ending *es*.

161b. The supine in *wan* is probably a case form of the noun in *war*, and if so it must be a suffixless dative (= IE suffixless locative) with *o*-grade of the stem vowel (cf. Gk. *ἐνδορ* if this is from **ἐνδομ*).³⁰ It is restricted to use with a following form of *tai-* 'place',³¹ e.g. *peskewan tiyer, peskewan taer*, which means 'they began to give and continued to do so' or something like that. The stereotyped nature of the phrases is reflected in occasional neglect of the word division within them.

161c. There is a strong tendency for *w* to be written twice or even three times; e.g. *eswar* (*e-šu-u-wa-ar*) from *es-* 'be', *harnenkwar* (*ḫar-ni-in-ku-u-ar*) from *harnenk-* 'destroy', *nahwas* (*na-aḫ-ḫu-u-wa-aš*) from *nah-* 'fear', *seswas* (*še-e-šu-wa-aš*) from *ses-* 'sleep', *nahsareskewan* (*na-aḫ-ša-ri-iš-ki-u-wa-an, na-aḫ-šar-ri-iš-ki-u-an*) from *nahsaresk-* 'fear'. Doubling of *m* is fairly frequent; e.g. *tar-nu-um-ma-aš* beside *tar-nu-mar* from *tarna-* 'put in'.

³⁰ Possibly the prevalence of this ablaut grade is somehow connected with the comparative rarity of forms in *wan* from verbs without a suffix; cf. Hirt, *Idg. Gr.* 2. 176 (§185.2. b. a).

³¹ When *tiyat* occurs with a supine it is undoubtedly a form of *tai-* 'place'. 3 pl. *taer* (*da-a-ir*) in this construction is also from *tai-* 'place', although some have derived it from *ta-* 'take.'

161d. The nom.-acc. in *war*, *mar* and the gen. in *was*, *mas* are freely made from any verb stem. The supine in *wan*, however, is largely restricted to the iterative-durative in *ska/e-* by the meaning of the phrases in which it occurs. We meet occasional forms from other stems, however; e.g. *eswan* (*e-eš-šu-wa-an*, *i-iš-šu-wa-an*) from *es-* 'set, sit', *krepwan* (*ka-ri-pu-u-wa-an*) from *krep-* 'devour', *petanewan* (*be-da-a-an-ni-wa-an*) from *petana-* 'take with one', *tarhwan* (*tar-aḥ-ḥu-u-wa-an*), from *tarh-* 'be powerful', *waswan* (*wa-aš-šu-wa-an*) from *wes-*, *was-* 'clothe'.

161e. The rarity of supines from other stems than those in *ske/a* helps to explain the apparent lack of the expected by-form *man*; the infrequency of inherited *uman* led to the substitution of *ewan* in such supines as *yanewan* (*i-ya-an-ni-wa-an*) and *petanewan*. The Arzawan dialect [5] supplies an infinitive in *mani*; *aumani* (*a-u-ma-ni*—VBoT 1. 12) 'to see'.

161f. When our suffixes are attached to stems in *ske/a*, the vowel before *w* is usually written *i*, no doubt for *e*; e.g. *pnuskewar* (*pu-nu-uš-ki-u-wa-ar*) from *pnusk-* 'ask', *peskewan* (*pi-eš-ki-u-wa-an*, *pi-iš-ki-u-an*) from *pesk-* 'give'; but we find also *paiskawan* (*pa-iš-ga-u-wa-an*) from *paisk-* 'go' and *weskawan* (*ú-e-eš-ga-u-an*) from *wesk-* 'ask'. On the other hand *ya-* verbs show the vowel *a* before *war* and *was*; e.g. *halziyawas* (*ḥal-zi-ya-u-wa-aš*, *ḥal-zi-i-ya-u-wa-aš*) from *halziya-* 'call', *hwitiyawar* (*ḥu-u-it-ti-ya-u-wa-ar*) from *hwitiya-* 'draw, lead'. Perhaps we should interpret the sign *ya* as standing for *ye* [43].

161g. The suffix of *hastwer* (*ḥa-aš-du-ir*) 'boughs'(?): Gk. *δῆος*, Goth. *asts* 'bough' < IH *ḥo-sd-*, may be the full grade form of *war*.

*wanzi, manzi*³²

162. The endings *wanzi* and *manzi* form infinitives from active *v* erbs e.g. *tawanzi* (*da-a-u-wa-an-zi*) from *ta-* 'take', *pawanzi* (*pa-a-u-wa-an-zi*) from *pai-* 'go', *spantwanzi* (*ši-pa-an-du-u-an-zi*, *ši-pa-an-du-wa-an-zi*, *ši-pa-an-tu-u-wa-an-zi*) from *spant-* 'pour a libation'; *wahnumanzi* (*wa-aḥ-nu-ma-an-zi*, *wa-aḥ-nu-um-ma-an-zi*) from *wahnu-* 'cause to turn', *tarnumanzi* (*tar-nu-ma-an-zi*) from *tarna-* 'put in'. These forms are evidently datives from stems with suffix *want*, *mant*, which should be considered extensions in *t* of the suffixes *war/n*, *mar/n* that we have just considered; cf. Gk. *δύματος* from *δύμα*, Lat. *cognōmentum* beside *cognōmen*. For the secondary adjective suffixes *wanz*, *manz*, see [177].

³² Hrozný, SH 90-2; Sommer, AU 285 fn. 2, 326.

zis, zi

163. The familiar IE suffix *tis* forms feminine action nouns with weak grade of the root. One can scarcely doubt that this is the source of Hittite *zi*, although neither frequency nor meaning nor gender accords perfectly.

luzi (*lu-uz-zi*) 'taxes' (paid in labor or in goods) may be connected directly with Gk. *λῶσις* 'ransom' (cf. Lat. *solutio* 'payment'), although Hittite shows a transfer to the neuter gender—possibly by the influence of *sahan* 'ground-rent due an overlord' (the two words are often coupled in the Code).

tuzis (acc. *tu-uz-zi-in*) 'army' corresponds rather well in meaning with Osc. *touto*, OIr. *tuath*, Goth. *þiuda*, Lett. *tauta* 'people, state'; it may contain the same root and an equivalent suffix.

apezis (acc. *ap-pt-iz-zi-in*) 'last' comes from IH *apo-i-tis* 'a going back', and *hantezis* (*ha-an-te-iz-zi-iš*) 'first' also contains IH *i-tis*, although the adverb *hanta* < IH *hantm* cannot have been combined with it until syllabic *m* had become *a* [97]. *sarazis* (*ša-ra-az-zi-iš*) 'highest' from *sara-* 'lift up' has probably been influenced in meaning by the two words just discussed. To this group must be assigned *sanezis* (dat. *ša-ne-iz-zi*) 'good, best; pleasant',³³ whose etymology is obscure.

uzis, uzi

164. The suffix *uzis* by which instrument nouns are formed³⁴ comes from IH *tis* with accretion of *u* from a stem final (causatives in *nu*?). The shifted meaning frequently induces a transfer to the neuter gender.

apuzis (gen. *ap-pu-uz-zi-ya-aš*) 'clay, tallow' from *ep-*, *ap-* 'take, seize'; *kunkunuzis* (*ku-un-ku-nu-uz-zi-iš*) 'diorite' from *kwen-*, *kun-* 'strike';³⁵ *lahurnuzis* (pl. *la-aḥ-ḥur-nu-uz-zi-uš*), *lahurnuzi* (*la-ḥur-nu-zi*) 'sacrificial table'; *shuzis* (acc. *iš-ḥu-uz-zi-in*) 'band, bond, girdle'³⁶ from *shai-* (*iš-ḥa-a-i*) 'bind'; *spantuzis* (acc. *iš-pa-an-du-uz-zi-in*), *spantuzi* (*iš-pa-an-tu-uz-zi*) 'ladle' from *spant-* 'pour a libation'; *warpuzi* (*wa-ar-pu-zi*) a bronze implement, from *warp-* 'wash, scrub'.

*astis, asti*³⁷

165. The suffix of ChSl. *dlǫgostъ* 'length' reappears in Hittite *talukasti* (*da-lu-ga-aš-ti*) 'length', *palhastis* (*pal-ḥa-aš-ti-iš*), *palhasti* (*pal-ḥa-a-*

³³ Ehelolf, OLZ 36. 4, 6.

³⁴ Sommer, BoSt. 10. 18 f.; Götze, KfF 1. 200 f.

³⁵ Carruthers, Lang. 9.154, and references.

³⁶ Götze, KfF 1. 200, 223; Sommer, AU 317 fn. 1.

³⁷ Hrozný, SH 23; Friedrich, ZA NF 5. 35, 77; Prellwitz, Glotta 19. 93.

aš-ti 'breadth', and *parkasti* (*pár-qa-aš-ti*) 'height'. It must be an IH combination of suffix *tis* with other material; Prellwitz finds the verb *es-* 'be' in the first syllable.

*zel*³⁸

166. A suffix *zel* appears in *sarnenkzel* (*šar-ni-ik-zi-il*, *šar-ni-ik-zi-el*) 'indemnification' from *sarnenk-* 'indemnify' and *tayazel* (*ta-ya-az-zi-il*) 'theft' from *taya-* 'steal'. One may compare the suffix of Lat. *sūtēla* 'a frame up' from *suo* 'sew' and *tūtēla* 'guardianship' from *tueor* 'watch'.

*mas*³⁹

167. In IE the suffix *mo-* makes ordinals, superlatives, and participles. That Hittite had ordinals of this sort is shown by the dat. *septamiya* (*ši-ip-ta-mi-ya*). Analogous to the Hittite action nouns are Skt. *gharmas* 'heat', Gk. *πταρμός* 'a sneezing', *φλογμός* 'a burning', Goth. *dōms* 'judgment', etc.

lahlahimas (*la-aḥ-la-aḥ-ḥi-ma-aš*) 'conflict, anxiety' from *lahlahiya-* 'fight'; *tethimas* (*te-it-ḥi-ma-aš*) 'thunder' from *tetha-* 'thunder'; *wantemas* (*wa-an-te-im-ma-aš*), *wantewantemas* (*wa-an-te-wa-an-te-ma-aš*) 'warmth, anger, lightning' from *wantai-* 'be warm'; *weritemas* (*ú-e-ri-te-ma-aš*, acc. *ú-ri-te-ma-an* [46]) 'anxiety' from the verb that underlies *weritesk-* 'be anxious' and *weritenu-* 'make anxious'. We may add to the list *ekunimas* (*e-ku-ni-ma-aš*) 'chilliness', *alalimas* (*a-la-li-ma-aš*), *alalamas* (*a-la-la-ma-aš*) 'terror' (?), and *hahimas* (*ḥa-aḥ-ḥi-ma-aš*) 'weakness' (?),⁴⁰ although the verbs from which they are derived are unknown.

Agent Nouns

*taras, talas*⁴¹

168. Hittite agrees with Slavic against the other IE languages in preferring the suffix *tel* to the suffix *ter* in forming agent nouns. Both suffixes appear in Hittite only with thematic vowel. Hittite *taras* has been certainly identified only in *akutaras* (*a-ku-ut-tar-aš*), *ekutaras* (*e-ku-ut-tar-ra[aš]*) 'drinker, one who gives to drink' from *aku-*, *eku-* 'drink, give to drink', and *westaras* (*ú-e-eš-ta-ra-aš*) 'shepherd' beside *wesiya-* 'graze'.

The suffix *talas* is always preceded by the vowel *a*; which may come

³⁸ Otherwise Hrozný, SH 53 f.

³⁹ Götze, KLf 1. 186 f.

⁴⁰ Forrer, RHA 1. 155. 33.

⁴¹ Hrozný, SH 56 f.; Sommer, BoSt. 7. 60-2.

from an original long diphthong (acc. *u-na-at-tal-la-an* 'merchant' from *u-nai* 'brings'), from original *ā* of the verb suffix *na* (pl. *ar-ša-na-tal-la-aš* beside *arsaniya-* 'envy'), from original *o* of a thematic verb (*uš-ki-iš-ga-tal-la-aš* from *uskeske-* 'see'), from the contraction of *ā* and *o* in a denominative in *a(e)* (*pal-wa-at-tal-la-aš* from *palwa(e)-* 'sing, play an accompaniment' or something of the sort), or from the *a* of the middle stem (pl. *ú-wa-tal-lu-uš* from *uwa(e)-*, middle stem of *au(s)-* 'see'). Apparently the *a* is a part of the suffix in *maniyahatalas* (acc. *ma-ni-aḥ-ḥa-tal-la-an*) from *maniyah-* 'govern'.

Participles

tas

169. There are only a few traces of the suffix *tos*, so common in the IE languages, and some of these are open to more or less doubt.

kurtas (acc. *gur-ta-an*) 'citadel' from *kwer-*, *kur-* 'cut off'; *kusata* (s. or pl.? *ku-ú-ša-ta*, *ku-ša-a-ta*) 'bride price' beside *kusan* 'price'; *lutas* (acc. *lu-ut-ta-an*) 'window' from *luk-* 'kindle, shine'; *sarlataš* (acc. *šar-la-at-ta-an* SISKUR 'praise offering' or 'thank offering')⁴² from *sarla(e)-* 'lift, exalt, praise'; *sastas* (*ša-aš-ta-aš*) 'bed' from *ses-*, *sas-* 'sleep'; *tanatas* (neut. *dan-na-at-ta-an*, *ta-an-na-ta-an*) 'empty, ravaged, deserted' beside *tanaranz* (acc. *dan-na-ra-an-da-an*) 'empty'⁴³; Skt. *dhanuṣ*, *dhanva* 'dry land, wilderness', Gk. *θῆνᾱρ* 'palm of the hand, surface of the altar or of the sea', OHG *tenni* 'floor, ground'.

*anz*⁴⁴

170. The participial function that in many IE languages falls to the adjectives in *tos* is in Hittite carried by the *nt-* formation which is familiar in IE present and aorist active participles. With this suffix a participle can apparently be made from any verb in the language and from almost any type of stem except the iterative-durative stem in *ske/a*. Verbs in *a* of the *hi*-conjugation form participles without the suffixal *s* that appears in certain forms, and those in *ai* form participles from the supplementary stem in *ya* exclusively. The IH ablaut of the suffix

⁴² Götze, K1F 1. 227, recognizes the adjectival character of the word, but nevertheless assigns it the suffix *t* of action nouns. Adjectives with that suffix are common in IE, but until Hittite parallels are forthcoming it is safer to include *sarlataš* here.

⁴³ For the meaning, cf. KUB 20. 85. 1. 11ff.

⁴⁴ Hrozný, SH 82-90; Sommer, BoSt. 7. 14 fn. 2; Friedrich, ZDMG 76. 168; Delaporte, Gramm. 25 f.

(*ent/ont/nt*) has given way to the single type *ant*, which may come partly from IH *ont* and partly from IH *nt* with syllabic *n*. The only exception I can cite is *ša-an-ḫu-un-da* (VBoT 24. 1. 17, 2. 8) 'roasted' from *sanhu*- 'roast'. If a stem suffix or a root permits ablaut it normally shows reduced grade or zero grade in the participle.

The meaning of the participles in *anz* is active if the verb from which they are formed is intransitive, otherwise passive.⁴⁵ Although they are formed from the stems with suffix or other modification which in IE grammar are called tense stems, the participles do not denote time. In case the verbal suffix carries a semantic value (e.g. a causative value) this belongs to the participle also. If a verb has both active and middle conjugation it is not possible to assign the participle to either voice. Occasionally we meet a participle from a verb that is known only in the middle voice; e.g. *kesanz* (*ki-ša-an-za*) from *kesa*, *kesari* 'becomes', *zeyanz* (acc. *zé-e-an-da-an*, neut. pl. *zé-ya-an-ta*) from *zeyari* 'is cooked'.

For the periphrastic conjugations based upon the participle, see [438, 439].

asanz (*a-ša-an-za*, pl. *a-aš-ša-an-te-eš*) 'being' from *es*-, *as*- 'be'; *atanz* (*a-da-an-za*, pl. *a-da-an-te-eš*) 'eaten' from *et*-, *at*- 'eat'; *wasanz* (*wa-aš-ša-an-za*) 'clothed' from *wes*-, *was*- 'clothe'; *kunanz* (*ku-na-an-za*) 'struck' from *kwen*-, *kun*- 'strike'; *kuranz* (acc. *ku-ra-an-ta-an*) 'cut off' from *kwer*-, *kur*-; *sarnenkanz* (*šar-ni-in-kán-za*) from *sarnenk*- 'make restitution'; *wahnwanz* (gen. *wa-aḫ-nu-wa-an-da-aš*) 'turned' from *wahn*- 'cause to turn'; *asiyanz* (*a-aš-ši-ya-an-za*) 'loved' from *asiya*- 'love'; *panz* (*pa-a-an-za*) 'going' from *pai*- 'go'; *hantan* (*ḫa-an-da-an-za*, *ḫa-an-ta-a-an-za*) 'established' from *hanta(e)*- 'establish'; *tepawesanz* (*te-e-pa-u-e-eš-ša-an-za*) 'grown small' from *tepawes*- 'become small'; *spantan* (*ši-pa-an-ta-an-za*) from *spant*- 'pour a libation'; *tarnanz* (*tar-na-an-za*) from *tarna*- 'put in'; *neyanz* (*ne-an-za*, pl. *ne-ya-an-te-eš*) from *nai*-, *neya*- 'lead, drive, turn'; *waresanz* (pl. *wa-ar-eš-ša-an-te-eš*, *wa-ar-ri-eš-ša-an-te-eš*) from *waresa*- 'protect'; *italawahanz* (pl. *i-da-la-wa-aḫ-ḫa-an-te-eš*) from *italawah*- 'injure'.

171. The suffix *anz* has gained two secondary uses in Hittite; it is used to strengthen the stems of adjectives and to form collective nouns.⁴⁶ The source of the adjectival suffix is clear; in such series as *meyas* 'ripe' : *mai*, *meyari* 'ripen' : *meyanz* 'ripened' and *hantas* 'firm' : *hantaezi* 'establishes' : *hantan* 'established' the first and third members

⁴⁵ On the possibility of medial force in certain participles, see Sommer, AU 252.

⁴⁶ Friedrich, Vert. 1. 80, 85 f.

came to be directly associated. Then *ermalan* (*ir-ma-la-an-za*) was formed from *ermalas* (*ir-ma-la-aš*) 'ill'. No doubt the collective use of the suffix developed in some similar fashion. Examples are *antuhsananz* (*an-tu-uḥ-ša-an-na-an-za*) 'population', *eshananz* (*e-eš-ḥa-na-an-za*) 'murder', *kestan* (inst. *ki-iš-ta-an-ti-it*) 'famine', *perunanz* (*pí-e-ru-na-an-za*) 'rock', *utneyanz* (*ud-ni-ya-an-za*, *ud-ne-e-an-za*) 'country, population'.

Denominative Nouns and Adjectives

*las, lis*⁴⁷

172. Denominatives prefer the suffixes *las* and *lis* to *ras* just as the agent nouns prefer *talas* to *taras*. As in IE the meaning of the derivatives varies. In the following incomplete list I group together at the end several quasi-agent nouns; cf. Gk. nouns in *της*.

ermalas (*ir-ma-la-aš*) from *ermas* 'ill'; *isalis* (neut. *iš-ša-al-li*) 'of the mouth' from *isas* 'mouth';⁴⁸ *karuwilis* (*ka-ru-ú-i-li-iš*, neut. *ka-ru-ú-li*) 'previous, ancient, eternal' from *karu* (*ka-ru-ú*) 'formerly'; *kenzuwalas* or *kenzwalas* (*gi-en-zu-wa-la-aš*) 'friendly' from *kenzu* 'friendship'; *meyantilis* (dat. *mi-ya-an-ti-li*) 'fruitful' from *meyanz*, participle of *meya-* 'ripen, be ripe'; *muriyalas* (acc. *mu-u-ri-ya-la-an*) 'made of grapes' (?) from *mūris* 'cluster of grapes';⁴⁹ *parnalis* (*pár-na-al-li-iš*) 'of the house' from *parna* 'house, estate'; *tuwalas* or *twalas* (dat. *tu-u-wa-li*, neut. pl. *tu-u-wa-la*) 'distant' from *tuwa* or *twa* (*tu-u-wa*) 'far'. *auriyalas* (*a-ú-ri-ya-la-aš*) 'sentry' from *auris* 'frontier garrison, outpost'; *harsiyalas* (*ḥar-ši-ya-la-aš*) 'sacrificer of *harsis*'; *tawalalas* (*da-a-wa-la-la-aš*) 'sacrificer of *tawal*'; *walhiyalas* (*wa-al-aḥ-ḥi-ya-la-aš*) 'sacrificer of *walhi*'; *spantuziyalas* (pl. *iš-pa-an-tu-uz-zi-ya-li-eš*) 'libation pourer' from *span-tuzi* 'ladle, libation'; *tapariyalas* (pl. *ta-pa-ri-ya-al-l[i-e-eš]*) 'ruler' from *tapariyas* 'prince'.

The lengthened grade of the suffix *lis* appears in *saklais* (*ša-a-ak-la-iš*) 'rite, custom, law' : Lat. *sacer*.

li

173. The neuter of adjectives in *lis* may denote an implement or manufactured adornment, and we have several such nouns beside which adjectives are not citable.

kuskusuli (*ku-uš-ku-uš-šu-ul-li*) 'mixing bowl' beside *kuskus-* 'mix'; *kutanali* (*ku-ut-ta-na-al-li*) 'necklace' from *kutar*, dat. *kutani* 'neck';

⁴⁷ Tenner, HAT 24.

⁴⁸ Ehelolf, OLZ 36. 6 fn. 3.

⁴⁹ Ehelolf, OLZ 36. 5 fn. 3.

pahunali (*pa-aḥ-ḥu-na-li*), *pahwenali* (abl. *pa-aḥ-ḥu-i-na-li-az*) 'brazier' from *pahur* (dat. *pa-aḥ-ḥu-ni*, *pa-aḥ-ḥu-e-ni*) 'fire'. Cf. *miyali* (*mi-ya-al-li*) 'mill' (?) and *zeriyali* (*zé-ri-ya-al-li*) 'mask' (?).

Adverbs in *li*

174. The adverbial suffix *li* is probably based upon datives of adjectives in *las* or *lis*. Typical examples are *karusiyantili* (*ka-ru-uš-ši-ya-an-ti-li*) 'quietly' from the participle *karusiyanz* and *Hatili* (*Ḥa-at-ti-i-li*) 'in Hattic'.

ras

175. The suffix *ras* appears most clearly in *haliyaras* or perhaps *haliyaris* (pl. *ḥal-li-ya-ri-eš*)⁵⁰ from *haliya*- 'worship, bow down', and in *kateras* (neut. *kat-te-ir-ra*) 'lower, inferior' from *kata* 'down'. The latter may contain the suffix *eros* of Lat. *superus*, *inferus*, etc.

*shas*⁵¹

176. The suffix *shas* is not infrequent, but the meaning of most of the words that contain it is unknown. Possibly suffixal *s* in some IE words should be connected with it, but I cannot find instances. Only three words of the group are etymologically clear: *tameshas* (*dam-me-eš-ḥa-aš*) 'injury, punishment' from *tames*- 'oppress, overrun'; *teshas* (abl. *te-eš-ḥa-az*) 'dream' from *te*- 'speak': Gk. *dearai* 'seem', *deiknumi* 'show'; *unwashas* (pl. *ú-nu-wa-aš-ḥu-uš*) 'adornment' from *unwa(e)*- 'adorn'.

wanz, *manz*⁵²

177. The IE possessive suffixes *went* and *ment* appear in Hittite with the vowel *a* generalized. *wanz*, with *w* often written twice, follows any stem final except *u*. I can find *manz* only in *nekumanz* (*ne-ku-ma-an-za*) 'naked', on which see [115].⁵³

arpwanz (pl. *ar-pu-wa-an-te-eš*) 'unlucky' from *arpas* 'bad luck'; *kartimiyawanz* (*kar-dam-mi-ya-u-wa-an-za*, *kar-di-mi-ya-u-wa-an-za*) 'angry' beside *kartimiyaz* 'anger', *kartimiya*- 'be angry'; *kestwanz* (pl. *ki-iš-du-wa-an-te-eš*) 'hungry' from *kasz* 'hunger'; *nahsariyawanz*

⁵⁰ But cf. *LÚḥal-li-ya-ri-aš* (KUB 2. 5. 2. 5).

⁵¹ Götze, KIF 1. 178 f.

⁵² Forrer, RHA 1. 152 fn. 28; Smieszek, Eos 30. 263-6.

⁵³ Götze, NBr. 34 f., interprets these words as participles of denominative verbs, and this seems to be correct for some items in his list, namely *maninkwanz*, *miyahwanz*, *misriwanz*. The scarcity of finite forms from his assumed denominatives should have served as a danger signal. Cf. Sommer, AU 62 and fn. 1.

(*na-aḥ-ša-ri-ya-wa-an-za*) 'afraid' beside *nahsaraz* 'fear', *nahsariya-* 'be afraid'; *tuskarawanta* (*du-uš-ga-ra-u-an-da*) 'joyfully' beside *tuskaraz* 'joy'; *apeneswanz* (*a-pi-e-ni-šu-u-an-za*, *a-pi-e-ni-iš-šu-an-za*, acc. *a-pi-ni-eš-šu-an-da-an*) 'such' beside *apenesan* 'thus'; *kiswan* (neut. *ki-iš-šu-wa-an*) 'as follows' beside *kisan* (*kiš-an*, *ki-iš-ša-an*) 'as follows'; *maswanz* (*ma-ši-wa-an-za*) 'quantus' beside *masiyanki* 'quot', *masiyanz* 'quantus'.⁵⁴

sas, *sis*⁵⁵

178. The suffixes *sas* and *sis* are common in proper names, which may not be Hittite at all, and which therefore do not fall within the scope of this grammar. They occur also in a number of common nouns or adjectives whose meaning or etymology is unknown. Somewhat more transparent than the other material are: *sarlatašis* (*šar-la-ad-da-aš-ši-iš*) 'zum Dank gehörig'⁵⁶ from *sarlataš* 'of praise' (?) [169]; *wetasas* (dat. *ú-i-ta-aš-ši*) 'yearly' from *wetas* (? dat. *ú-it-ti*) 'year'; *yukasas* (*i-ú-ga-aš-ša-aš*) from *yukas* 'yearling'.

*umnas*⁵⁷

179. The suffix *umnas*, which forms gentilicia, may or may not belong to the Hittite language; the preservation of *mn* is perhaps an indication of recent borrowing. It is confined to proper names, except for *kwen-zumnas* (*ku-en-zu-um-na-aš*) 'cuias'.

II. DECLENSION

Stem Classes

180. The IH *o*-stems and *ā*-stems are indistinguishable in Hittite on account of the change of *o* to *a* [79] and the lack of any record of quantity [49b]. Similarly stems in *i* and *u* cannot be distinguished from those in *ī* and *ū* respectively. On the other hand diphthongal stems (in *ai* and *au*) are more extensively represented than in the IE languages. Stems in *r/n* are also more common than in IE. Consonant stems show about the same neuter types as in the IE languages, but *s*-stems are rare. Hittite has an *h*-stem [221] which cannot be compared with anything in IE. Masculine consonant stems are chiefly confined to nouns and adjectives in *t*, including those in *nt*.

⁵⁴ With the last three words, cf. Skt. *tāvant-*, *iyant-* 'tantus', etc.

⁵⁵ Forrer, ZDMG 76. 218-20; Sommer, AU 370 f. and fn. 1.

⁵⁶ Götze, KLf 1. 227.

⁵⁷ Friedrich, Vert. 2. 152; Götze, ZA NF 6. 260-3.

Gender⁵⁸

181. Hittite nouns, adjectives, and pronouns present two genders, one corresponding to the IE masculine and feminine and the other to the IE neuter. The striking difference from the IE system is the lack of the feminine gender, and it seems advisable to bring this fact into relief by calling the Hittite genders *masculine* and *neuter*, illogical as such a nomenclature is. The alternative would be to say instead of *masculine* something like *animate* or *personal*; but many masculine nouns in Hittite do not denote persons or even living beings, and neuter pronouns often refer to persons. The term *masculine* is less objectionable on account of its prevailing grammatical connotation.

The lack of the feminine gender in Hittite harmonizes with the evidently incomplete development of that gender in primitive IE; perhaps the beginnings of the linguistic distinction of the sexes belong to the pre-IE period.

As in IE the distinction between masculine and neuter is confined to nom. and acc.; masculines have a formal distinction between those cases, while neuters do not. The neuters have no ending in the nom.-acc. s., except that the *a*-stems have the ending *n*, which also forms the acc. masc. The commonest way of forming the nom.-acc. pl. of neuters is by the ending *a*; but frequently the sing. is used for the pl. [183], and occasionally an ending *i* appears [201].

Neuter nouns sometimes function as adjectives; e.g. *kurur* 'hostility' and also 'hostile', *taksul* 'peace' and also 'peaceful'. In view of its form the adjective *sakwasar* (*ša-ku-wa-aš-šar*) 'complete, legal, loyal'⁵⁹ must originally have been a neuter noun; the acc. masc. *sakwasaran* (*ša-ku-wa-aš-ša-ra-an*) resulted from the adjectival use. I suspect a similar development in *upesaran* (*up-pi-eš-ša-ra-an*—VBoT 24. 1. 25) 'one added to the company' (?) beside *upesar* (*up-pi-eš-šar*) 'something sent, gift'. Another instance is *kalar* (*kal-la-ar*) 'bad', which shows an acc. masc. *kalaran* (*kal-la-ra-an*—KUB 24. 7. 4. 33).

For the use of neuter pronouns to refer to persons, see [258].

Number⁶⁰

182. The Hittite noun has only a defective declension in the plural, and even the few case forms that exist are frequently interchanged in a

⁵⁸ Hrozný, SH 6-8, etc.; Friedrich, ZDMG 76. 159 f.; Meillet, BSL 32. 1-28.

⁵⁹ Sommer, AU 67 f.

⁶⁰ Hrozný, SH 47-9; Friedrich, Vert. 1. 36 f.; Sommer, AU 230 f.; Petersen, AJP 51. 251-60.

way that is quite unparalleled in the singular. Masculines present the three endings *es*, *us*, and *as*; e.g. from *humanz* 'all, whole', *humantes* (*hu-u-ma-an-te-eš*), *humantus* (*hu-u-ma-an-du-uš*), and *humantas* (*hu-u-ma-an-da-aš*). In a majority of their occurrences these forms function as nom., acc., and gen.-dat. respectively, but forms in *us* and *as* are common in nominative value, and so are forms in *es* and *as* in accusative value—so common that it is not worth while to cite examples. Forms in *es* and *us* are much less common in dative value, but I have noted *waskwes* (*wa-aš-ku-i-e-eš*—KUB 5. 6. 2. 18, 30), *kenus* (*gi-nu-uš*—KBo. 3. 4. 2. 20), *samanus* (*ša-ma-nu-uš*—KUB 2. 2. 1. 50).⁶¹ As we shall see [198–200], the connection of these three endings with IE material is not entirely clear; but none of them can be derived from accusatives or oblique cases such as those that have been reconstructed by the comparison of the IE languages. The Hittite plural endings of masc. nouns and adjectives are to be identified with IE nominative endings or, in part, to be regarded as Hittite innovations. The Hittite neuter plural similarly shows relationship with the IE neuter plural only in the nom.-acc.

These facts, together with etymological considerations, indicate that Hittite inherited only a general plural case ending in *as*, *es*, or *us* according to the final sound of the stem. There had always been a good deal of variation between the several types of noun stem, and certain Hittite phonetic laws tended to obliterate original distinctions. They led to a complete amalgamation of the original *o*-stems and *ā*-stems [180]; the change of *ēyos* to *ayās* and then to *as* [78, 108] produced an *i*-stem genitive identical with the *a*-stem genitive [194b]; the change of *āi*, *ōi*, and *ēi* to *ai* yielded an identical dative for *a*-stems and *i*-stems [195ab]; the change of *eyes* to *es* perhaps gave an *i*-stem plural identical with the consonant stem plural [198]; etc. Since the plural was less firmly established than the singular the confusion reached its maximum there, so that any noun or adjective might employ any one of the three endings. Then the three were gradually—and only incompletely—redistributed to piece out the most essential part of the case-system.

183. When numerals accompany a noun or adjective the use of singular or plural is optional. Since plural forms are sometimes indistinguish-

⁶¹ In the greater part of this grammar I cite plural noun forms merely as plurals, since I believe that their incomplete specialization as case forms is altogether secondary. In the following treatment of declension, however, it is convenient to label the three types as nom., acc., and dat., respectively; and this is done consistently, regardless of what syntactic uses may be citable for the several words.

able from singulars it is impossible to study the matter statistically; but apparently the plural form is more common with numerals than the singular in our texts. Such an illogical idiom as the combination of plural with singular is more likely to be a survival than an innovation^{61a} and besides it is easier to understand the lack of plural cases in IH if the use of plural forms was optional. Probably IH employed singular nouns and adjectives in a plural value with numerals and possibly elsewhere.

The following list of singulars with pl. numerals contains only forms that cannot be pl. I include several words whose meaning is not known except as far as it is suggested by a determinative. *an* (*a-a-an*), neut. of *anz* 'heated' (KBo. 5. 1. 1. 55; KUB 7. 53. 1. 22; 10. 63. 6. 9; 10. 95. 3. 8; 12. 58. 4. 29; 25. 48. 4. 14); *har-za-zu-un*, a kind of bread (KUB 10. 11. 3. 18; 11. 35. 2. 16; 25. 18. 3. 17ff.); *ha-aš-šu-wa-wa-an-ni-in*, a kind of vessel (KUB 20. 23. 3. 6); *hu-up-ru-uš-ḫi-in* 'temporary altars' (KBo. 5. 2. 2. 32, 3. 23); *kesrin* (*ki-iš-ri-in*) 'gloves' (KBo. 5. 2. 1. 43); *la-aḫ-ḫu-ra-an*, a kind of implement used in the ritual (KBo. 5. 2. 2. 34); *pa-aš-ši-la-an* 'bits of gravel' (KBo. 5. 2. 1. 56, 57, 58; VBoT 24. 3. 26);⁶² *suwanz* (*š-u-wa-an-za*) 'filled' (KBo. 5. 2. 1. 29); *ú-e-tin* 'buildings' (KBo. 2. 1. 1. 26). Particularly difficult is *sawetesz* (*ša-ú-i-ti-iš-za*, etc.) 'of the same year', which in half a dozen passages of the Code stands with a numeral where we should expect an acc. pl.; since **sawetestan* never occurs, we may perhaps assume that the word had the same form in nom. and acc.—somewhat as if Lat. *vetus* had continued to function as an accusative in all genders and had induced a similar use of *vetustus*.

In this connection we may mention the use of abl. and inst. s. beside *sakwa* 'eyes'; e.g. IGI.ḪI.A-*wa-az* (KUB 13. 4. 2. 20), IGI.ḪI.A-*wa-za* (KUB 8. 48. 1. 22), *ša-a-ku-it* (KUB 23. 72. 1. 19), IGI.ḪI.A-*it* (KBo. 4. 8. 2. 11; KUB 20. 92. 6. 12).⁶³

183a. The use of indubitable singulars in a plural value suggests caution in setting up Hittite plurals identical in form with the singular except for a long vowel in the last syllable. We have seen [49b] that there is not enough consistency in writing vowels double to make that a safe criterion, and now we see that there is nothing foreign to the language in the use of a singular noun in plural value. Such a phrase as *kwe kalar italu utar* (*ku-e kal-la-ar i-da-a-lu ud-da-a-ar*—KBo. 4. 2.

^{61a} I do not mean to deny the possibility of a secondary loss of plural forms, particularly in case of phonological loss of distinguishing characteristics.

⁶² Cf. acc. pl. *pa-aš-ši-lu-uš*, *pa-aš-ši-la-aš*.

⁶³ Friedrich, AOF 7. 121.

2. 19 f.) 'what foul, injurious things' proves that the last three words have plural as well as singular value; but it does not prove that Hittite inherited *u*-stem neuter plurals in *ū* as well as in *-uə* and *-ēwə*, or *r*-stem neuter plurals in *-ōr*. Similarly the phrase *kururi meki* (*ku-u-ru-ri*.H.I.A. *me-ik-ki*—KBo. 5. 8. 2. 11) 'many enemies', beside equivalent *kururi mekaya* (*ku-u-ru-ri*.H.I.A. . . *me-ig-ga-ya*—ib. 2. 35), probably contains singular *meki* in plural value. Peculiarly objectionable is the assumption of pl. *wetar* (*ú-i-da-a-ar*, *ú-wi-ta-ar*) 'waters' on the basis solely of the repeated *a*; it is much more likely that *wetar* is a variant of *s. watar* (*wa-a-tar*) after the analogy of the oblique cases, *wetas* (*ú-wi-te-na-aš*, *ú-i-te-na-aš*), etc. In the paradigms in this book plurals are not listed unless they differ in form from the corresponding singulars.

184. Hittite retains a few traces of the dual, but only in the nom.-acc. There are several instances of the ending *a* < IH *ō*, and probably one of the ending *e* of consonant stems. The clearest instance is the formulaic phrase *hasa hanzasa* (*ha-aš-ša ha-an-za-aš-ša*) 'grandchild (and) great-grandchild',⁶⁴ which shows this form in acc. as well as nom. Syntactically it is to be compared with the IE elliptical dual (Skt. *Mitrā* 'Mitra and Varuna', Homeric *Αἰῶνρε*, etc.). Its precise correspondence with the Vedic "*devatā*"-dvandvas (*Mitrā-Varuṇā*, etc.) confirms Edgerton's⁶⁵ ascription of that type to primitive IE. Outside the nom. our phrase may be declined either as a singular (*ha-a-aš-ši ha-an-za-aš-ši*, *ha-aš-še-it ha-an-za-aš-ši-it*) or as a plural (*ha-aš-šu-uš ha-an-za-aš-šu-uš*, *ha-aš-ša-aš ha-an-za-aš-ša-aš*), and once the second word is given the form of an acc. s. (*ha-aš-ša ha-an-za-aš-ša-an*—KUB 21. 12. 14).

Very similar is the phrase *huha hanes* (*hu-uḫ-ha ha-an-ni-iš*—KUB 17. 29. 6) 'grandfathers (and) grandmothers'. The plural ending of the second word is evidently felt as applying to both; but we may plausibly explain the form *huha* by assuming a phrase *huha* **hana* 'grandfather (and) grandmother'.

Perhaps the occasional forms *ata* and *ana* for *atas* 'father' and *anas* 'mother' (e.g. *at-ta*—KBo. 3. 7. 3. 21; *an-na*—KBo. 6. 26. 2. 3) may have originated in dual phrases; with *ehu* *Marduk katetema ata Inarawantas* (*e-ḫu* ^DZUR.UTU *kat-ti-ti-ma at-ta* ^D*In-na-ra-wa-an-ta-aš*—HT 1. 1. 29) 'come Marduk, and with you come the father of Inarawanz', compare Russian *my s toboi* 'thou and I' (literally 'we with thee').

The common word *sakwa* (*ša-a-ku-wa*) 'eyes' is more naturally

⁶⁴ Friedrich, Vert. 2. 36 f.

⁶⁵ Edgerton, KZ 43. 110-20, 44. 23-5.

interpreted as a dual than as a neuter plural, since its cognates of similar stem (Gk. *ὀπή* 'hole', *εἰς ὤπα* 'face to face', Lat. *oculus* 'eye') are not neuter.

utne 'country' probably comes from IH *ūdne* 'breasts' [85]. The oblique cases, *utneyas*, etc., were developed from the nom.-acc. by analogy after it had come to be felt as a singular.

The Cases—Syntax

185. Hittite has six cases, nominative, accusative, genitive, dative, ablative, and instrumental.

186. The nominative functions also as vocative.

187. The accusative denotes the end of motion as well as the direct object.

188. The genitive has about the same uses as in the older IE languages, and besides it is often used with ellipsis of its governing noun.⁶⁶ These examples will indicate the chief varieties of the construction: *kartiyastas yami* (*kar-di-aš-ta-aš i-ya-mi*) 'I shall do < the thing > of your heart', i.e. your desire; *manas harkanas* (*ma-a-na-aš ḫar-kán-na-aš*) 'if he is < a man > of ruin', i.e. doomed to destruction; DUMU.ŠU *Ū.UL wa-aš-du-la-aš-be* 'his son is not of sin', i.e. a sinner; *tuk Matuwatan lenkiyasas yet* (*tu-uk ¹Ma-ad-du-wa-at-ta-an li-in-ki-aš-ša-aš i-e-it*) 'he made you, Matuwatas, < a man > of his oath', i.e. his vassal; DINGIR. LUM *da-me-el NUMUN-aš pi-ra-an EGIR-pa li-e tar-na-i* 'the goddess shall not let < one > of another family go back and forth'. For an apparent instance of gen. for abl. (KUB 17. 1. 2. 15), see Friedrich, KIF 1. 295, ZA NF 5.74.

On the gerundive use of the gen. of verbal nouns in *war*, *mar*, see [161a].

189. The Hittite dative corresponds to the IE dative and locative, which probably represent a single IH case.⁶⁷ The dat. denotes place where, time when, and the indirect object, and it is the commonest means of expressing the end of motion. In our earliest documents there is a tendency to specialize datives ending in *a* in the latter sense, but it was never carried through consistently and it scarcely figures at all in most of the texts.⁶⁸ We may illustrate several less common constructions. Dative of agent: KUB 7. 1. 2. 3: *nukan kwetani karates atantes*

⁶⁶ Götze, Madd. 100; Friedrich, Vert. 1. 45, 158, 2. 140, 142 f.; Sommer, AU 31 f.

⁶⁷ TAPA 62. 18-25.

⁶⁸ Forrer, Altorient. Stud. 1. 30-35; Friedrich, Altorient. Stud. 1. 50 f.; Sturtevant, Lang. 5. 139-46.

(*nu-kán ku-i-da-ni ka-ra-a-ti-iš a-ta-an-te-eš*) 'by whom *karates* have been eaten'. KUB 24. 7. 4. 37: ^DUTU-*ikan kwis asiyatari* (^DUTU-*kán ku-iš a-aš-ši-ya-at-ta-ri*) 'who is loved by His Majesty'. Dative of purpose: KBo. 4. 4. 2. 68 f.: *nukan . . . kwin . . . ANA Nuwanza* (69) GAL.GEŠTIN *haluki pra nehun* (*nu-kán . . . ku-in . . . A.NA ¹Nu-wa-an-za* GAL.GEŠTIN *ha-lu-ki pa-ra-a ne-iḫ-ḫu-un*) 'whom I sent to Nuwanzas, the chief of the butlers, for a message', i.e. as a messenger. Dative in a comparison:⁶⁹ KUB 14. 7. 4. 11 f.: *man antuhsaspe ati ani DUMU-an salanuzi* (*ma-a-an UN-aš-be at-ti an-ni DUMU-an šal-la-nu-zi*) 'if a man values the son higher than his father and mother'.

190. The Hittite ablative and instrumental both developed out of the IH abl., and they share between them the forces of the IE abl. and inst.⁷⁰ The abl. denotes the place from which, means or instrument, and also place where, time when, and the part of the body touched. The inst. denotes accompaniment, attendant circumstances, means or instrument, and the part of the body touched. Not only are the two cases equivalent in part of their territory; they are occasionally coupled in the same phrase.

The Cases—Form

191. The nom. s. masc. ends in *s* no matter what the stem. In IH, as in IE, no doubt some masc. (or masc. and fem.? [181]) nouns formed their nom. s. without *s*; but in Hittite the ending has spread to all such words as far as they survive.

For original nominative dual in *a*, see [184]. Neuter nouns used as adjectives [181] normally retain their neuter form in the nom. s. The history of *ara* in the common phrase *nata ara* (*Ū.UL a-a-ra*) 'it is not right, it is an abomination'⁷¹ is unknown; perhaps the word was originally a dative. Possibly *kesar* (*ki-eš-šar*) beside *kesras* (*ki-eš-ši-ra-aš*) 'hand' is a lone survival of the nom. s. masc. without *s*; but it is sometimes used as an accusative (e.g. KBo. 3. 16. 3. 7), and so had better be classed as a neuter.

191a. The nom. s. masc. of the *a*-stems may be illustrated by *atas* (*at-ta-aš*) 'father'. The final *as* must come from IH *os* of the *o*-stems (Gk. *θεός*, Lat. *servos*).

⁶⁹ Friedrich, AOF 3. 185 f., ZA NF 5. 43 fn. 1.

⁷⁰ Bork, OLZ 23. 64; Sommer, ZA 33. 94-7, BoSt. 10. 26, 30, 53, AU 81; Hrozný, CH 158, Donum Natalicium Schrijnen 367 f.; Tenner, HAT 21; Ehelolf, IF 43. 316 f.; Friedrich, Vert. 2. 163; Sturtevant, Lang. 8. 1-10.

⁷¹ Sommer, AU 97.

191b. The *i*-stems show three forms of the nom. masc.; with final *is*, *ais*, or *es*. The first type, as in *supis* (*šu-up-iš*) 'clean', corresponds to Skt. *agniṣ*, Gk. *πῶλις*, Lat. *ignis*, Goth. *gasts*. The second type, as in *zahais* (*za-aḥ-ḥa-iš*) 'fight', contains lengthened grade of the stem and corresponds to Skt. *sakhā* (acc. *sakhāyam*) 'friend' and Gk. *ἡχώ*. The third type, as in *kesres* (*ki-iš-ri-eš*) 'glove', appears as an occasional variant of the first type; the more common form is *kesris* (*ki-iš-ri-iš*). Nevertheless spellings of this sort in nom. and acc., masc. and neut., are too frequent to be regarded as inaccurate representations of *is*, *in*, and *i*.⁷² I suggest that Hittite inherited nominatives and accusatives in *es*, *en*, and *e* from IH *ēs*, *ēm*, and *ē*, the well-known by-forms of *ēis*, *ēim*, and *ēi*. At the time when our texts were written such forms may have survived only as traditional orthographical curiosities. At any rate we can take no account of them in our paradigms.

Nom. *hanteziyas* (*ḥa-an-te-iz-zi-ya-aš*) and acc. *hanteziyan* (*ḥa-an-te-iz-zi-ya-an*), beside *hantezis*, *hantezin*, are analogical creations from oblique cases on the model of the *a*-stems (gen. *atas* : abl. *ataz* : nom. *atas* : acc. *atan* = gen. *hanteziyas* : abl. *hanteziyaz* : nom. *hanteziyas* : acc. *hanteziyan*).

191c. The *u*-stems show two forms of the nom. masc.; with final *us* or *aus*. The first type, as in *asus* (*a-aš-šu-uš*) 'good', is the only one at all common; it corresponds to Skt. *svādus*, Gk. *ῥδύς*, Goth. *sunus*.⁷³ The second type is known to me in only one word, *harnaus* (*ḥar-na-a-uš*) 'birth chair'. Like the type *zahais*, it contains lengthened grade of the stem; it corresponds to Av. *ugra-bāzāuš* 'strong armed', OP *dahāuš* 'province'.

191d. With a few possible exceptions, such as *has* 'soap' and *kesar* 'hand' [210], the only masculines with consonant stems are those with dental stems. These show the ending *s*, which is written together with the final consonant of the stem as *z*; e.g. *aniyaz* (*a-ni-ya-az*), *humanz* (*ḥu-u-ma-an-za*).

191e. Nom. *memiyas* 'word' and acc. *memiyan*, beside gen. *memiyanas*,

⁷² I have record of one instance each of *a-ra-u-wa-an-ni-eš*, *ki-iš-ri-eš*, *lu-li-mi-eš*; *am-ba-aš-si-en*, *an-na-ri-en*, *ḥa-li-en*, *ḥa-li-pi-en*, *ka-lu-ti-en*, *ku-pi-ya-te-in*, *mu-u-š-ni-en*, *ša-al-ḥi-an-ti-en*, *dam-pu-pi-en*, *ú-e-še-in*; *ku-uš-ša-ni-eš-ši-it*, *ma-še-e*, *me-ne*.

⁷³ One or two *u*-stem adjectives have variants in *uis* (e.g. *pār-ku-iš* beside *pār-ku-uš*), the two stems making each a more or less complete set of forms. The resemblance to Latin *tenuis*, *suavis* beside Gk. *τάρυ-*, *ῥδύς* is obvious, but perhaps fortuitous.

etc. is a defective *a*-stem noun.⁷⁴ So also is *tapwas* (nom. and gen.) 'side', which is related to dat. *tapusa*, *tapusz* 'near'.

192. The acc. s. masc. always ends in *n* < IH *m*.

From *a*-stems we have *an*, which probably reflects both IH *om* of the *o*-stems and IH *ām* of the *ā*-stems.

The *i*-stems show three forms of the acc. masc.; with final *in*, *ain*, and *en*. The ending *in* < IH *im* contains zero grade of the root, while the endings *ain* and *en* < IH *ēm* and *ēm* contain lengthened grade.

On the acc. *hanteziyan*, see [191b].

The acc. masc. of *u*-stems regularly ends in *un* < IH *um*. From *harnaús* 'birth chair' we have three occurrences of acc. *har-na-a-ú*, which may be neuter, or masc. with graphic neglect of the final consonant [57]. Compare the corresponding nominatives [191c]. The acc. *harnain* (*har-na-a-in*, *har-na-in*) shows the same tendency to substitute the diphthong *ai* for *au* which we shall have to record in the 3 s. pres. of the *hi*-conjugation [366]. Here as there Skt. exhibits the reverse tendency; the locative s. *agnau* from *agniṣ* 'fire' must stand for IE *ngnēi*.

The consonant stem masculines always have final *an*, which must come from IH *īm* unless syllabic *m* yielded Hittite *an* [97].

193. The nom. acc. s. neuter of *a*-stems ends in *n* < IH *m*. Other neuters employ the bare stem as nom.-acc.⁷⁵ Nom. *watar* (*wa-a-tar*) 'water' beside gen. *wetas* preserves ablaut of the radical syllable; it comes from IH *wādōr*, and stands in the same relation to Gk. *ῥῶρ* as Hittite *asanzi* 'they are' (< IH *śenti*) to Gk. *ἐντι*, Skt. *santi*.^{75a} The variant *wetar* (*ú-i-da-a-ar*) is analogical. The *nt*-stems lose final *t* [118].

For the nominative *utne*, see [184].

194. The gen. sing. normally ends in *as* whatever the stem final may be. The only exceptions I know are *sarnenkwas* for *sarnenkwas*, *hwe-sawas* for *hwesawas*, which may rather be analogical plurals [161a]; LUGAL-us and *pankus* (*pa-an-ku-uš*), which Sommer⁷⁶ once interpreted as genitives in KBo. 2. 6. 1. 22, 3. 25, 37; and certain proper names. If Sommer's interpretation stands, *us* will represent IH *eus* or *ous*; cf. Skt. *śatroṣ*, Lat. *fluctūs*, Goth. *sunaus*.

⁷⁴ Friedrich, Vert. 1. 43.

⁷⁵ SIG₅-*in* seems to function as a neuter adjective in the omen texts; but perhaps it is an adverbially used acc. masc.; cf. Götze, Kf 1. 184; Sommer, AU 125 fn. 1. One cannot place much reliance upon the apparent nominative syntax of *wetin* (*ú-e-tin*) 'building' in the list in KBo. 2. 1. 1. 26.

^{75a} Some may prefer to assume IH nom. *wodōr* on account of ChSl. *voda*.

⁷⁶ BoSt. 7. 17 f.

194a. The gen. s. of the *a*-stems ends in *as* (e.g. *at-ta-aš*). Since the IE *o*-stems suggest no possible source, it probably comes from *ās* of the *ā*-stems.^{76a}

194b. The *i*-stem and *u*-stem genitives like *tuziyas* (*tu-uz-zi-ya-aš*) from *tuzis* 'army' and *asuwas* (*a-aš-šu-wa-aš*) from *asus* 'good' correspond to Vedic *avyas*, *pitvas* and Gk. *πόλιος*, and in part, no doubt, to genitives of the *i/yā*-stems and the *ū/wā*-stems. The *u*-stem genitives like *harnawas* (*har-na-a-u-wa-aš*) 'of the birth chair' and *asawas* (*a-aš-ša-u-wa-aš*) from *asus* 'good' must contain lengthened grade of the stem vowel. Since pre-Hittite *aya* would become *a* [107], we should expect genitives in *as* from the *i*-stems, and three such are citable; *salas* (*šal-la-aš*—KBo. 3. 1. 2. 31), *supas* (*šu-up-pa-aš*—KBo. 4. 9. 1. 17; KUB 7. 1. 1. 13), *kalutas* (gen.? *ga-lu-da-aš*—KUB 8. 62. 1. 20). For analogically restored *ayas* I can cite *lenkayas* (*li-in-ga-ya-aš*—KBo. 4. 4. 4. 60, 68; KUB 14. 17. 2. 13) and *supayas* (*šu-up-pa-ya-aš*—KUB 20. 88. 6. 15). Even in words that incline to use the lengthened grade of the stem vowel, genitives like *lenkiyas* are much more common.

194c. In the consonant stems the Hittite ending *as* corresponds with Gk. *os* and early Lat. *us* (*nōminus*, *Caesarus*). There is nothing to say about the ablaut of the stem beyond what is obvious from the paradigms [209–222].

For the gen. of action nouns in *war* and *mar*, see [161a].

Gen. *nepiyas* = *nepesas* 'of the sky' indicates a transfer to the *i*-declension.

195a. The dat. s. of *a*-stems usually ends in *e*; the final vowel is conventionally written *i*, but a few forms disclose its real character (*eš-ḫé* 'ero'—KBo. 3. 34. 1. 25; *šu-up-li-eš-ši* 'in his pen' (?)—KBo. 6. 34. 4. 15; *pī-e-te-ši* 'in his place'—KBo. 4. 9. 1. 49). This must be identified with the IE locative in *ei/oi*. A few *a*-stem datives end in *ai* (*ḫa-mi-na-a-i*—KUB 10. 13. 3. 7; *ḫar-ḫa-ra-i*—KUB 11. 34. 1. 6; *ḫa-ar-ḫa-ra-a-e*—KUB 10. 60. 4; *ḫa-aš-ša-an-na-i*—KBo. 3. 1. 2. 49; *la-ba-ar-na-i*—KUB 2. 2. 3. 9; *lu-ut-ta-i*—KUB 17. 10. 4. 21).⁷⁷ More frequently we meet a dative ending *a* (*a-ra*, *a-ru-na*, *a-aš-ka*, *ḫa-an-ti-ya-ra*, *ḫa-aš-ša-an-na*, *iš-ki-ša*, *gi-im-ra*, *la-aḫ-ḫa*, *šar-di-ya*, *šu-uḫ-ḫa*, *tu-li-ya*). Both these endings come from IH *ō(i)*, which yielded the IE dative (Gk. *ἰππῶ*, Lat. *equō*). A fourth type of dative from *a*-stems ends in *iya* (e.g. *a-ri-ya*,

^{76a} Petersen, AJP 51. 252 fn. 4. But Pedersen, *Études Lituanienes* 23, suggests that the identity of nom. and gen. may be an archaism in Hittite.

⁷⁷ These forms as well as datives in *-iya* have sometimes been taken as evidence for an *i*-stem alongside of the *a*-stem.

iš-ši-ya, lu-ut-ti-ya, ši-ip-ta-mi-ya). These forms contain a postposition *a*, which is rather common in the dative of the *i*-stems; and very likely they are taken over from such stems. The alternative is to suppose that *septamiya*, for instance, comes somehow from **septame-a*, or from pre-Hittite *septamey-a* (perhaps we should pronounce the Hittite words *septameya*, etc.).

195b. The *i*-stems form their datives in *i*, *ai*, *iya*, or *aya*. The first type, as in *hantezi* (*ha-an-te-iz-zi*) from *hantezis* 'first', is confined to adjectives and neuter substantives. Probably it corresponds to the Gk. dative *πόλι*, but it may be borrowed from the consonant stems [195d]. The second type, as in *supai* (*šu-up-pa-i*) from *supis* 'clean', evidently represents the IH dative in *ēi*, whence the IE locative seen in Goth. *anstai* from *anstis* 'grace' and implied by the Skt. loc. in *au* (*agnau* 'in the fire'). In IH there was a variant *ē* beside *ēi*, and this probably appears in Homeric *πόληι* from **πολη* with an ending from the consonant stems.^{77a} Possibly we have an isolated trace of this form in Hittite *esre* (*e-eš-ri-eš-ši*—KBo. 3. 7. 3. 20) beside dat. *esri* from *esri* 'form, picture'. Probably it is better to find here the influence of the ending *e* of the *a*-stems, or to consider the writing of *eš* for *iš* a scribe's error. The third type, as in *tuziya* (*tu-uz-zi-ya*) from *tuzis* 'army', consists of **tuzi* (like *hantezi*) with the postposition (IH *e/o*, *ē/ō*) that is appended to various case forms in IE; e.g. Skt. dat. *asurāya* = Av. *ahurāi*, Av. loc. *gātava* from *gātu-* 'place' beside *haetō* 'at the bridge', Av. loc. pl. *raoḍaēšva* from *raoḍa-* 'outward appearance' beside *aspaēšu* from *aspa-* 'horse', ChSl. loc. *kamene* from *kamy* 'stone', Lith. loc. *rañkoje* from *rankà* 'hand'.⁷⁸ The fourth type, as in *supaya* (*šu-up-pa-ya*) from *supis* 'clean', appears to be *supai* with the postposition *a*; but pre-Hittite *aya* should become *a*, and I can cite *karta* (*šā-ta—passim*) 'in the heart' and *hatuka* (*ha-tu-ga*—KBo. 3. 21. 2. 24) from *hatuki-* 'frightful, terrible'. Hence *supaya*, like gen. *lenkayas* and abl. *salayaz*, is an analogical restoration.

195c. The dat. s. of the *u*-stems generally ends in *uwi* or *awi*. The former, as in *asuwi* (*aš-šu-u-i*) from *asus* 'good', corresponds to gen. *asuwas* and to the *i*-stem dat. *hantezi*; probably it comes from IH *uwi*. The latter, as in *harnawi* (*har-na-a-ū-i*) and *asawi* (*a-aš-ša-u-i*), is an

^{77a} Otherwise Wackernagel, *Vermischte Beiträge zur Griechischen Sprachkunde* 54.

⁷⁸ Brugmann, *Grund.* 2. 2. 185 f. Very likely this is the same word as the Hittite connective and emphatic particle *-a* (the form *-ya* originated after final *i* and *-e*). Cf. [264].

analogical creation formed on the model of the gen. *asawas*. The variant *pankawē* (*pa-an-ga-u-e*—KUB 25. 36. 2. 10, 14) is probably due to the influence of the *a*-stems. Besides we have one instance each of datives in *au* and *u*; *harnau* (*har-na-a-ú*—KBo. 5. 1. 1. 26) is the IE locative in *ēu* (Skt. *śatrau*, Goth. *sunau*), and *kenu* (*gi-nu*—KUB 14. 15. 2. 6) is the IE loc. in *eu* (Skt. *vasto* 'at dawn', Av. *haētō* 'at the bridge').

195d. The neuter consonant stems almost always form their dat. s. by adding *i* to the stem, which may have a strong form as in *pahweni* (*pa-aḥ-ḥu-e-ni*) 'in the fire', *weteni* (*ú-e-te-ni*) 'in the water', *nepesi* (*ne-pi-ši*) 'in the sky', or a weak form as in *eshani* (*e-eš-ḥa-ni*) 'in the blood', *paprani* (*pa-ap-ra-an-ni*) < **papratni* 'to, for guilt'. We should expect the ending *i* after a strong stem but *e* < IH *ei* after a weak stem (cf. Skt. *pītari* : *pītre*, *dyavi* : *dive*, Lat. *Iove* : Cyprian *δῖφει*-). The consistent orthography with *i* suggests, however, that the ending proper after a strong stem had been generalized. Occasional forms in *a* such as *takna* (*ták-na-a*—KBo. 3. 28. 2. 16; 6. 13. 1. 8) 'to the ground, on the ground' and *tunakesna* (*tu-un-na-ki-iš-na*, *tu-un-na-ak-eš-na*—KBo. 3. 22. 2. 78; KUB 10. 17. 1. 17) must be due to the influence of the *a* stems. On the middle endings *ti/te*, see [424].

195e. The masculine *t*-stems generally present a dat. in *i* like that of other consonant stems. From IH *kmt-* 'hand' (cf. Goth. *handus*) we have *kate-* in such phrases as *katese* (*kat-ti-eš-ši*—KUB 20. 83. 3. 9) 'with him'; and this must be connected with Gk. *καρά*, as the commoner *kata* (*kat-ta*) is connected with Gk. *καρά*. The latter pair must be acc. (IH *kmtm*), and the former dat. (IH *kmti*). Why we should have the pausa form instead of anteconsonantal *i* is not clear [90]. Forms in *a* are relatively frequent from this group of words, e.g. *hanta* (*ḥa-an-da*—KBo. 3. 21. 2. 12; 3. 41. 2. 15) 'forth, forward' from *hanz* 'front'; *kestwanta* (*ki-iš-du-wa-an-da*—KBo. 6. 13. 1. 19); *meyanta* (*mi-an-da*—KBo. 6. 11. 1. 9); *takaliyanta* (*tág-ga-li-ya-an-da*—KBo. 6. 11. 1. 14). Of these *hanta* : Gk. *ἄνρα* must be an original accusative, and the others are probably to be explained in the same way. Their use, however, is closer to the normal dat. construction, and from the Hittite point of view they must be so classified.

195f. There is a tendency in archaic texts to specialize datives with final *a* in the construction of the end of motion; but this is nowhere carried through consistently.⁷⁹

196. The abl. s. ends in *z* [ts], which is the zero grade of the IH and

⁷⁹ Forrer, *Altorient. Stud.* 1. 30-5; Sturtevant, *Lang.* 5. 139-46.

IE suffix *tos* (Skt. *mukhatas* 'from the mouth', Lat. *funditus* 'from the bottom', Gk. *ἐκτός* 'outside'). In pre-IH final *ts* lost *s* before a word beginning with *s* [143c], and the remainder of the suffix appears in IE *o*-stem ablatives (Skt. *devāt*, OLat. *dōnōd*). Under other sandhi-conditions final *ts* became *s* in IE and this fell together with the original gen. wherever the gen. ended in *s*, i.e. everywhere except in the *o*-stems. IH *ts* remains in Hittite as *z*, and this is the abl. ending even in the original *o*-stems.^{79a}

196a. The abl. s. of the *a*-stems regularly has *a* < IH *ō* before the final *z*, as *anaz* (*an-na-az*), *askaz* (*a-aš-ka-az*, *a-aš-ka-za*).⁸⁰ Thus the Hittite abl. parallels OLat. *dōnōd* rather than OLat. *facilumēd*. Perhaps *ā*-stem ablatives in IH *āts* have contributed their share of Hittite forms. Occasional *a*-stem ablatives in *anz* (e.g. *lu-ut-ta-an-za*—KUB 17. 5. 1. 24; 17. 6. 1. 19)⁸¹ must owe their *n* to the influence of the *n*-stems. In *ḫa-an-te-iz-zi-ya-at* UD-at 'after the first day' (KUB 25. 28. 1. 6) we seem to have an ablative of the other sandhi-form but with the usual ablative vocalism.

196b. The identity of gen. and abl. in all IE nouns and adjectives except *o*-stems would lead one to expect a close parallelism between the Hittite gen. and abl. In the *i*-stems this is what we find. Abl. *supiyaz* (*šu-up-pi-ya-az*) corresponds to gen. *tuziyas* (*tu-uz-zi-ya-aš*) and abl. *supayaz* (*šu-up-pa-ya-az*) corresponds to gen. *supayas* (*šu-up-pa-ya-aš*) while the regular loss of *y* between like vowels gives us *supaz* (*šu-up-pa-za*—KUB 10. 52. 6. 14). The analogical restoration of *aya* is more common in the abl. than in the gen. I can cite, besides *supayaz*, the following: *haluwayaz* (*ḫal-lu-wa-ya-za*), *hatukayaz* (*ḫa-tu-ga-ya-az*), *parkwayaz* (*pār-ku-wa-ya-az*), *salayaz* (*šal-la-ya-az*), *supayaz* (*šu-up-pa-ya-az*), *tankwayaz* (*da-an-ku-wa-ya-az*). Forms like *da-pi-za* (KBo. 2. 9. 1. 7; 6. 28. 2. 27; KUB 25. 23. 1. 19) and *tup-pi-za* (KUB 23. 95. 3. 18) should probably be interpreted as *tapez* and *tupez* on the ground that they correspond to Skt. ablatives like *agneṣ* (IH *eits*). It is much less likely that they contain the zero grade of the stem vowel.

196c. In the *u*-stems also the abl. shows the same stem forms as the gen.; abl. *asuwarz* (*a-aš-šu-wa-az*) matches gen. *asuwas* and abl. *asawaz*

^{79a} Sturtevant, Lang. 8. 1-10. Rosenkranz, KZ 60. 291 f., identifies Hittite *az* with IE *os* on the basis of an IE phonetic change, *ots* > *oss* > *os*. He leaves IE *ōt* of the *o*-stems out of account.

⁸⁰ There is a possibility that the variation between final *az* and *za* in all ablatives is phonetically significant. If so final *a* is no doubt the postposition noticed in [195b]. Cf. the pronominal ablatives in *e-iz-za*.

⁸¹ Götze, Kf 1. 192.

(*a-aš-ša-u-wa-az*) matches gen. *asawas*. Abl. *italaz* (*i-da-a-la-az*—KUB 15. 42. 2. 9), if it is not a mere blunder, must be due to the analogy of the *i*-stems (*supayaz* : *supaz* = *italawaz* : *italaz*).

196d. Consonant stem ablatives usually show *az* added to the stem. One is inclined to think of borrowing from the *a*-stems in view of the lack of a union vowel in Skt. forms with suffix *tas*: *ṛktas*, *hṛttas*, *śīrṣatas*, etc.; but after all abl. *henkanaz* (*hi-in-ga-na-az*, *hi-in-ga-na-za*) harmonizes with gen. *henkanas* (*hi-in-ga-na-aš*) and with Skt. gen.-abl. *śīrṣṇas*. We find also a number of ablatives with *z* appended directly to the stem, as *arhz* (*a-ra-aḥ-za*) 'outside' beside *arha* (*ar-ḥa*) 'away', *perz* (*Ē-ir-za*) from *per* 'house', *starz* (*ši-it-tar-za*) from *star* (*ši-it-tar*) 'star', *nepesz* (*ne-pī-iš-za*) from *nepes* (*ne-pī-iš*) 'sky', *tapusz* (*ta-pu-uš-za*) beside *tapusa* (*ta-pu-ša*) 'near', *sehunz* (*še-ḥu-un-za*) from *sehur* of unknown meaning. With zero grade of the stem, as is usual in the action nouns in *tar* and *sar*, we should expect such forms as **papranz* from *papratar* and **hanesanz* from *hanesar*; but the analogy of the gen. and dat. (*papranas*, *paprani*; *hanesnas*, *hanesni*) changed these forms to *paprananz* (*pa-ap-ra-an-na-an-za*) and *hanesnanz* (*ḥa-an-ni-iš-na-an-za*). So also *hasananz* (*ḥa-aš-ša-an-na-an-za*) from *hasatar*.

197. The inst. has the ending *t*, which is the sandhi-form of *ts* that developed before initial *s* [143c].

197a. The *a*-stems have final *et* < IH *ēt* (cf. OLat. *facilumēd*). The conventional spelling is with *it* (e.g. *te-eš-ḥi-it*),⁸² but our IE evidence shows clearly enough that we must interpret *teshet* rather than *teshit*. Besides we have *ḥa-aš-še-it* (KUB 12. 58. 4. 12) from *hasas* (*ḥa-aš-ša-aš*) 'grandchild'.

197b. The inst. of *i*-stems also regularly shows written *i* before *t*. Inst. *halket* (*ḥal-ki-it*), like abl. *tapez*, probably shows the same ablaut of the stem vowel as Skt. gen. *agneṣ* (IH *eit* < *eits*); zero grade of the stem vowel before zero grade of the ending is unlikely. Consequently I shall write *e* in broad transcription, although I cannot cite an instance of written *e* in any *i*-stem instrumental. The assumption of full grade of the stem vowel is, however, made easier by clear evidence for the lengthened grade in *zahait* (*za-aḥ-ḥa-it*—KUB 11. 1. 4. 10) from *zahais* 'fight' and *anzait* (*an-za-it*—KUB 24. 7. 2. 11), an implement of some kind.

⁸² In a majority of the few *a*-stem instrumentals of which I have record the true vowel quality could have been denoted only by use of the vowel sign *e*. For example, *ne-u-it* from **newas* 'new' could be made explicit only by spelling **ne-u-e-it*, **ne-wi-e-it*, or the like.

197c. The only certain instance of a *u*-stem instrumental of which I have record is *kanut* (*ga-nu-ut*—KUB 12. 63. 1. 26⁸³) from *kenu* 'knee'. This must come from IH *gñéut* beside nom. *genu*. Inst. *lalet* (*la-a-li-it*—KUB 1. 16. 3. 8) stands beside *la-a-lu-[uš]* (KBo. 1. 51. 2. 19 f.) 'penis erectus', but there is also a genitive *la-a-la-aš* (KUB 9. 34. 3. 30). Inst. *zuparet* (*zu-up-pa-ri-it*—KUB 11. 28. 4. 1) belongs with acc. *zuparu* (*zu-up-pa-ru*), but pl. *zupari* (*zu-up-pa-ri*.HI.A—KUB 20. 96. 4. 1) implies a parallel stem in final *r* or *ri*.

197d. Consonant stems most frequently present an instrumental written *it*. It may get its vowel from the analogy of the *a*-stems and the *i*-stems, or it may be analogous to the IE gen. ending *es* (cf. the abl. ending *az*, which is parallel to the gen. *as* < IH *os* [194e]). In either case we are compelled to interpret the orthography as standing for *et*; e.g. *lamnet* (*lam-ni-it*) from *laman* 'name', *memalet* (*me-ma-li-it*) from *memal* 'meal'. Oddly enough the *nt*-stems show written *e* in more than half the recorded forms; e.g. *antet* (*a-a-an-te-it*—KUB 1. 13. 3. 17, 51, 4. 44), *arantet* (*a-ra-an-te-it*—KUB 10. 89. 1. 21), *marnuantet* (*mar-nu-an-te-it*—KUB 11. 28. 4. 5), *zeyantet* (*zé-e-(ya-)an-te-it*—KBo. 5. 1. 1. 29, 36, 3. 3). There are also a number of instrumentals that attach the ending *t* directly to the stem;⁸⁴ *eshant* (*e-eš-ḫa-an-ta*) from *eshar* 'blood', *lenkant* (*li-in-kán-ta*) 'by an oath', *shimant* (*iš-ḫi-ma-an-ta*) 'with a cord', *stamant* (*iš-ta-ma-an-ta*) from *stamar* 'ear', *wetant* (*ú-e-da-an-da*) from *watar* 'water', *kesart* (*ki-iš-šar-ta*) from *kesar* 'hand'. Since final *t* after a consonant was lost [118], these forms must be analogical reformations on the basis of ablatives like *nepesz* [196d].

198. The nom. pl. masc. [182] in *es* must have originated in the consonant stems (IH *es*) or in the *i*-stems. The only consonant stems from which such forms are citable are the *nt*-stems,⁸⁵ but *humantes* (*ḫu-u-ma-an-te-eš*) and the numerous like forms satisfy all the requirements of our problem. From *i*-stems also nominatives in *es* are frequent; they present four types of orthography: (1) *šar-kán-te-eš* (Bo. 2002 reverse 1.51⁸⁶), pl. of an *i*-stem of unknown meaning, *ku-e-eš* (passim) 'qui'; (2) *ḫa-a-li-iš*, *pal-ḫi-iš*, *šal-li-iš*; (3) *ḫa-li-ya-mi-e-eš*, *me-ik-ki-e-eš*, *na-ak-ki-e-eš*; (4) *ḫa-tu-ga-e-eš*, *me-ig-ga-e-eš*, *šu-up-pa-e-eš*. The first three kinds of spelling have usually been interpreted as repre-

⁸³ Ehelolf, IF 43. 317 fn. 3.

⁸⁴ Ehelolf, IF 43. 316 f.

⁸⁵ Nearly all other Hittite consonant stems are either neuters or action nouns with suffix *t*.

⁸⁶ According to Hrozný, SH 13.

senting an ending *es*, and that interpretation is supported by the occasional acc. *mekus* (*me-ik-ku-uš*), *nakus* (*na-ak-ku-uš*), which must be due to the proportion: *ates* : *atus* = *mekes* : *mekus*. In this book we shall assume nom. pl. *mekes*, etc., in spite of the difficulties mentioned below. One may most easily derive *es* from IH *eyes* (Skt. *trayas* 'three') [107]. Nevertheless, since IE *eyes* (with full grade vowel in two successive syllables) must represent an analogical creation at some time subsequent to the origin of the ablaut system, we must reckon with the possibility that IH showed final *eis* (e.g. *megeis*) with full grade of the stem vowel and zero grade of the ending. This seems the only way to harmonize *es* in the Hittite *i*-stems with *us* in the Hittite *u*-stems [199]. The orthography of *me-ig-ga-e-eš* surely stands for *mekaes* (whether dissyllabic or trisyllabic is uncertain) from pre-Hittite *mekāyes*, an analogical form based upon the *u*-stems [108].

The commonest spelling of the nom. pl. masc. of the *i*-stems is as in *na-ak-ki-e-eš*, and this may readily be interpreted as *nakies*. Then *nakies*/*mekaes* will correspond to gen. s. *tuziyas*/*supas* (< *supayas*) and also to the nom. pl. masc. of *u*-stems, *kutruwes* / *asawes*. An argument against interpreting *na-ak-ki-e-eš* as *nakes* is the extreme rarity of spellings like *šar-kán-te-eš*, which require such an interpretation. Aside from this one form from an unpublished text I can cite only the pronominal *ku-e-eš* (beside commoner *ku-i-e-eš*!) and forms like *pár-ku-e-eš* and *tan-ku-e-eš*, which may be assigned to the *u*-stem (*parkus*, *tankus*) rather than to the *i*-stem (*parkwis*, *tankwis*). In the *nt*-stems and the *a*-stems, on the other hand, spellings like *hu-u-ma-an-te-eš* and *dan-na-at-te-eš* are frequent. Those who decide in favor of nom. pl. *nakies* will have to regard it as an analogical creation.

199. The acc. pl. masc. [182] ends in *us*, which must come from the *u*-stems, although it is not clear just how. The Hittite *u*-stems form their masc. pl. nom. in *es*; i.e. *kutruwes* (*ku-ut-ru-e-eš*) 'witnesses' or *asawes* (*a-aš-ša-u-e-eš*) 'boni', and their masc. pl. acc. in *us*; i.e. *seknus* (*še-ik-nu-uš*) 'mantles' or *tasaus* (*da-aš-ša-uš*) 'strong'. Clearly only the third type (*seknus*) can be considered as the source of the *a*-stem forms like *atus* (*at-tu-uš*), the consonant stem forms like *humantus* (*hu-u-ma-an-du-uš*), or the *i*-stem forms like *halkius* (*hal-ki-uš*). Hittite *us* might come from IH *uns* (: IE acc. pl. *uns*) before an initial consonant [134]; but we find no trace of the corresponding antevocalic *unz* [133], and there is nowhere proof of plural oblique cases in IH. It seems better to look to the IE nom. pl. for an analogue. Possibly we may have one in Lith. *súnūs* 'sons' and Lat. *fructūs*: both these and the

Hittite forms may represent IH *ūs*, or Lithuanian, Latin, and pre-Hittite may independently have created such a plural on the analogy of the *o*-stems (*os* : *ōs* = *us* : *ūs*).⁸⁷ I am inclined, however, to believe that *us* represents an IH nom. in *eus*, i.e. full grade of the stem and zero grade of the ending. In this way there is a possibility of harmonizing the *us* of the *u*-stems (IH *eus*) and the *es* of the *i*-stems (IH *eis*).

The acc. pl. masc. of *a*-stems and consonant stems is due to obvious analogy; examples are *atus* (*ad-du-uš*) and *humantus* (*ḥu-u-ma-an-du-uš*). The *i*-stem forms *tuzius* (*tu-uz-zi-uš*) and *mekaus* (*me-ig-ga-uš*) correspond respectively to gen. s. *tuziyas* and *supa(ya)s*.

200. The ending of the gen.-dat. pl. is *as*, which was probably at first a plural ending of the *a*-stems. Such forms as *atas* (*at-la-aš*) and *tanatas* (*ta-an-na-at-la-aš*) may contain IH *ōs* of the *o*-stems or *ās* of the *ā*-stems. From the other types of stem we have easy analogical creations: *hanteziyas* (*ḥa-an-te-iz-zi-ya-aš*) and *supayas* (*šu-up-pa-ya-aš*) from the *i*-stems; *kenuwas* (*gi-e-nu-wa-aš*) from the *u*-stems; *taksulas* (*ták-šu-la-aš*) and *humantas* (*ḥu-u-ma-an-da-aš*) from the consonant stems.

201. Hittite neuter plurals are most commonly formed with suffix *a*, which probably represents IH *ā* in the *a*-stems and *ə* elsewhere. The only certain instance of an *a*-stem neuter plural is *parna* (*pár-na*) 'farm buildings' beside dat. pl. *parnas* (*pár-na-aš*) and dat. s. *parni*, *parna* (*pár-ni*, *pár-na*).⁸⁸

From the *i*-stems we have such forms as *mekaya* (*me-ig-ga-ya*) 'magna', which appear to contain the lengthened grade of the stem-vowel; but since pre-Hittite *aya* became *a* we must assume an analogical restoration on the model of the *u*-stems. From the *u*-stems we have the two types *kenuwa* (*gi-e-nu-wa*) 'knees' and *italawa* (*i-da-a-la-u-wa*) 'mala'. The former, if inherited, comes from IH *uə*, and may correspond with the IE neuter plurals in *ū*. The latter, if inherited, comes from IH *ēwə*.

Consonant stem forms, such as *sahana* (*ša-aḥ-ḥa-na*) from *sahan*

⁸⁷ Cf. Petersen, AJP 51. 256. Of course it is equally possible to interpret the *i*-stem nom. pl. *ḥa-a-li-iš* as *halis* with pre-Hittite *īs* from IH *īs* or by the analogy of the *o*-stems; but such an orthography is relatively infrequent in the *i*-stems, and had better be interpreted as standing for *es* or possibly *ies*. Many will continue to derive Lith. and Lat. *ūs* from IE *ewes*, but for Hittite such a source is impossible.

⁸⁸ The law-phrase *parna-se-ya suwaezi* (*pár-na-aš-še-e-a šu-wa-a-iz-zi*, *pár-na-še-ya šu-wa-a-iz-zi*) surely means 'and he gives his farm buildings as security' nearly as Götze (ZA NF 2. 17, 261-6) suggested; but *se* is neut. pl. of the possessive pronoun, not dat. s. of the personal pronoun.

'ground rent' and *humanta* (*hu-u-ma-an-da*) 'omnia', require no comment. A number of *r*-stems and *r/n*-stems show plurals in *ri*; e.g. *kururi* (*ku-ru-ri-ĤI.A*) from *kurur* 'hostility, hostile', *zankilatari* (*za-an-ki-la-tar-ri-ĤI.A*) from *zankilatar* 'punishment'. The ending *i* apparently cannot be compared with anything in the IE languages. The regular practice of writing the Sumerian collective suffix *ĤI.A* after these forms suggests that they may be foreign (Luwian?).

III. PARADIGMS

202. In the following paradigms only words actually citable are employed, and each case form is supported by one or more typical spellings. Rarer forms are given in fine print after the several paradigms. For a discussion of the case forms from the historical and comparative point of view, see [191–201].

Plural forms are listed only in their normal values; in general any form of the masculine plural may be used for any case [182].

a-stems

203. *atas* 'father', *petan* 'place', *anas* 'mother', *hasas* 'grandchild', *eshas* 'master', *parna* (pl.) 'farm buildings', *arunas* 'sea', *lutas* 'window', *yukan* 'yoke', *askas* 'gate, court, storehouse', *newas* 'new', *teshas* 'dream', *antuhsas* 'man', *tanatas* 'empty'.

Singular		
nom.	<i>atas</i>	(<i>at-ta-aš, an-na-aš, ĥa-aš-ša-aš, iš-ĥa-a-aš, a-ru-na-aš</i>)
acc.	<i>atan</i>	(<i>at-ta-an, a-ru-na-an, lu-ut-ta-an</i>)
neut.	<i>petan</i>	(<i>pt-e-da-an, i-ú-kán</i>)
gen.	<i>atas</i>	(<i>at-ta-aš, pt-e-da-aš, an-na-aš, iš-ĥa-a-aš, a-ru-na-aš</i>)
dat.	<i>pete</i>	(<i>pt-e-te, pt-e-di, an-ni, iš-ĥi, iš-ĥi-i, eš-ĥe</i>)
abl.	<i>anaz</i>	(<i>an-na-az, a-ru-na-az, a-aš-ka-az, a-aš-ka-za</i>)
inst.	<i>haset</i>	(<i>ĥa-aš-še-it, ne-u-it, te-eš-ĥi-it</i>)
Plural		
nom.	<i>eshes</i>	(<i>iš-ĥe-eš, an-tu-uĥ-še-eš, dan-na-at-te-eš</i>)
acc.	<i>atus</i>	(<i>ad-du-uš, an-nu-uš, ĥa-aš-šu-uš, te-eš-ĥu-uš</i>)
neut.	<i>parna</i>	(<i>pár-na</i>)
gen.-dat.	<i>atas</i>	(<i>ad-da-aš, at-ta-aš, dan-na-at-ta-aš, an-tu-uĥ-ša-aš</i>)

Less common forms.

Singular	
nom.	<i>ata, ana</i> are probably dual [184].
dat.	<i>lutai</i> (<i>lu-ut-ta-i, ha-mi-na-a-i, har-ha-ra-i, la-ba-ar-na-i</i>)
	<i>aruna</i> (<i>a-ru-na, a-ra, a-aš-ka</i>)
	<i>lutiya</i> (<i>lu-ut-ti-ya, a-ri-ya, ši-ip-ta-mi-ya</i>)
abl.	<i>lutanz</i> (<i>lu-ut-ta-an-za</i>)
	<i>sastas</i> (<i>ša-aš-ta-aš</i>)
Dual	
nom.-acc.	<i>sakwa</i> (<i>ša-a-ku-wa, ha-aš-ša</i>)

i-stems(full grade and zero grade forms)⁸⁹

204. *supis* 'clean', *tuzis* 'army', *hantezis* 'first', *halkis* 'grain', *mekis* 'great, many', *tankwis* 'black', *walhi*, a sacrificial drink, *hwasi* 'relief, statue', *nakis* 'heavy', *salis* 'great'.

Singular	
nom.	<i>supis</i> (<i>šu-up-iš, ha-an-te-iz-zi-iš, hal-ki-iš, me-ik-ki-iš, da-an-ku-i-iš</i>)
acc.	<i>supin</i> (<i>šu-up-pi-in, ha-an-te-iz-zi-in, hal-ki-in, da-an-ku-in</i>)
neut.	<i>supi</i> (<i>šu-up-pi, me-ik-ki, me-ik-ki-i, da-an-ku-i, wa-al-ḥi</i>)
gen.	<i>tuziyas</i> (<i>tu-uz-zi-ya-aš, ha-an-te-iz-zi-ya-aš, hal-ki-ya-aš, da-an-ku-ya-aš</i>)
dat.	<i>hantezi</i> (<i>ha-an-te-iz-zi, da-an-ku-i, na-ak-ki-i</i>)
	<i>tuziya</i> (<i>tu-uz-zi-ya, hu-u-wa-ši-ya</i>)
abl.	<i>supiyaz</i> (<i>šu-up-pi-ya-az, ha-an-te-iz-zi-az, hu-u-wa-ši-ya-az</i>)
inst.	<i>halket</i> (<i>hal-ki-it, wa-al-ḥi-it</i>)
Plural	
nom.	<i>mekes</i> (<i>me-ik-ki-eš, ta-an-ku-e-eš?</i> [198], <i>na-ak-ki-e-eš, šal-li-iš</i>)
acc.	<i>tuzius</i> (<i>tu-uz-zi-uš, ha-an-te-iz-zi-uš, hal-ki-uš</i>)
gen.-dat.	<i>hanteziyas</i> (<i>ha-an-te-iz-zi-ya-aš, ha-an-te-iz-zi-aš, hal-ki-aš</i>)

⁸⁹ For convenience the forms with lengthened grade of the stem vowel are separated from the others and given in a second paradigm. There is a tendency for certain words to prefer one type of declension or the other, but confusion of the two is the rule.

Rarer and heteroclitic forms

Singular		
nom.	<i>hanteziyas</i>	(<i>ha-an-te-iz-zi-ya-aš</i>)
acc.	<i>hanteziyan</i>	(<i>ha-an-te-iz-zi-ya-an</i>)
neut.	<i>wetin</i>	(? <i>ú-e-tin</i> [193 fn. 75])
dat.	<i>esre</i>	(<i>e-eš-ri-eš-ši</i>)
abl.	<i>tapez</i>	(<i>da-pi-za, tup-pi-za</i>)
Plural		
acc.	<i>mekus</i>	(<i>me-ik-ku-uš, še-ik-nu-uš</i>)
neut.	(The singular <i>meki</i> occurs in plural value.)	

i-stems

(lengthened grade forms)

205. *zahais* 'fight', *lenkais* 'oath', *hastai* 'bone, skeleton', *supis* 'clean', *anzais*, an implement, *mekis* 'great, many', *salis* 'great', *hwrtais* 'curse', *hukmais* 'incantation', *hupwai*, a kind of vessel, *parkwis* 'clean', *tankwis* 'black'.

Singular		
nom.	<i>zahais</i>	(<i>za-aḥ-ha-iš, ḥur-ta-a-iš, ḥu-uk-ma-iš</i>)
acc.	<i>lenkain</i>	(<i>li-in-ga-in, za-aḥ-ha-in, ḥu-ur-ta-in, ḥu-uk-ma-in</i>)
neut.	<i>hastai</i>	(<i>ha-aš-ta-i, ḥu-pu-wa-i</i>)
gen.	<i>supas</i> ⁹⁰	(<i>šu-up-pa-aš, šal-la-aš</i>)
dat.	<i>supai</i>	(<i>šu-up-pa-i, li-in-ga-i, li-en-ga-i, šal-la-i, ha-aš-ta-i</i>)
	<i>supaya</i>	(<i>šu-up-pa-ya, pár-ku-wa-ya</i>)
abl.	<i>supayaz</i>	(<i>šu-up-pa-ya-az, šal-la-ya-az, da-an-ku-wa-ya-az</i>)
inst.	<i>zahait</i>	(<i>za-aḥ-ha-it, an-za-it</i>)
Plural		
nom.	<i>mekaes</i>	(<i>me-ig-ga-e-eš, šu-up-pa-eš, ḥu-uk-ma-iš</i>)
acc.	<i>mekaus</i>	(<i>me-ig-ga-uš, li-en-ga-uš, šu-up-pa-uš, ḥur-ta-uš</i>)
neut.	<i>mekaya</i>	(<i>me-ig-ga-ya, šu-up-pa-ya, ta-an-ku-wa-ya</i>)
gen.-dat.	<i>supayas</i>	(<i>šu-up-pa-ya-aš, pár-ku-wa-ya-aš</i>)

Less common forms

Singular		
nom.	<i>kesres</i>	(<i>ki-iš-ri-eš, a-ra-u-wa-an-ni-eš</i>)
acc.	<i>halen</i>	(<i>ha-li-en, ku-pi-ya-te-in, ú-e-še-in</i>)
neut.	<i>mene</i>	(<i>me-ne, ma-še-e, ku-uš-ša-ni-eš-ši-it</i>)

⁹⁰ Generally supplanted by the type *tuziyas* [194b].

gen.	<i>lenkayas</i>	(<i>li-in-ga-ya-aš, su-up-pa-ya-as</i>)
dat.	<i>karia</i>	(<i>šĀ-ta, ħa-tu-ga</i>)
abl.	<i>supaz</i>	(<i>šu-up-pa-za</i>)
	Plural	
neut.	<i>supa</i>	(<i>šu-up-pa, ka-ru-ū-i-la</i>)

u-stems(full grade and zero grade forms)⁹¹

206. *italus* 'bad', *asus* 'good', *kenu* 'knee', *kutrus* 'witness', *seknus* 'mantle', *pankus* 'whole, populace', *wapus* 'cave, tomb', *tasus* 'strong', *tarnus* 'bath house'(?), *welku* 'vegetation'(?), *hwesus* 'alive, raw'.

Singular

nom.	<i>italus</i>	(<i>i-da-lu-uš, a-aš-šu-uš, pa-an-ku-uš</i>)
acc.	<i>italun</i>	(<i>i-da-a-lu-un, pa-an-ku-un, ši-ik-nu-un</i>)
neut.	<i>italu</i>	(<i>i-da-a-lu, a-aš-šu-u, gi-e-nu</i>)
gen.	<i>asuwas</i>	(<i>a-aš-šu-wa-aš, ku-ut-ru-aš, wa-ap-pu-wa-aš</i>)
dat.	<i>asuwi</i>	(<i>aš-šu-ū-i, wa-ap-pu-i, ta-aš-šu-ū-i</i>)
abl.	<i>asuwas</i>	(<i>a-aš-šu-wa-az, wa-ap-pu-wa-az</i>)
inst.	<i>kanut</i>	(<i>ga-nu-ut</i>)

Plural

nom.	<i>kutruwes</i>	(<i>ku-ut-ru-e-eš, tar-nu-ū-e-eš</i>)
acc.	<i>seknus</i>	(<i>še-ik-nu-uš, wa-ap-pu-uš</i>)
neut.	<i>kenuwa</i>	(<i>gi-e-nu-wa, ū-el-ku-wa</i>)
gen.-dat.	<i>kenuwas</i>	(<i>gi-e-nu-wa-aš, ħu-i-šu-wa-aš</i>)

Rarer and heteroclitic forms

Singular

gen.	<i>hatalwas</i>	(<i>ħa-at-tal-wa-aš</i>)
	<i>pankus</i>	(? <i>pa-an-ku-uš</i> [194])
	<i>kenu</i>	(<i>gi-nu</i>)
dat.	<i>kenuwa</i>	(<i>gi-e-nu-wa</i>)
	<i>hatalwa</i>	(<i>ħa-at-tal-wa</i>)
abl.	<i>italaz</i>	(? <i>i-da-a-la-az</i> [196c])

Plural

dat.	<i>hwesas</i>	(<i>ħu-u-i-ša-aš</i>)
------	---------------	-------------------------

u-stems

(lengthened grade forms)

207. *harnaas* 'birth-chair', *italus* 'bad', *tasus* 'strong', *asus* 'good', *parkus* 'high'.

⁹¹ As in the *i*-stems the forms with lengthened grade of the stem vowel are separated from the others for convenience.

Singular		
nom.	<i>harnaus</i>	(<i>ħar-na-a-uš</i>)
acc.	<i>harnau</i>	(<i>ħar-na-a-ú</i>)
gen.	<i>harnawas</i>	(<i>ħar-na-a-u-wa-aš, a-aš-ša-u-wa-aš</i>)
dat.	<i>harnawi</i>	(<i>ħar-na-a-ú-i, i-da-la-u-i, a-aš-ša-u-i</i>)
abl.	<i>italawaz</i>	(<i>i-da-la-u-wa-az, a-aš-ša-u-wa-az</i>)
Plural		
nom.	<i>italawes</i>	(<i>i-da-a-la-u-e-eš, a-aš-ša-u-e-eš, pár-ga-u-e-eš</i>)
acc.	<i>tasaus</i>	(<i>da-aš-ša-uš, pár-ga-u-uš</i>)
neut.	<i>italawa</i>	(<i>i-da-a-la-u-wa</i>)

Rarer and heteroclitic forms

Singular		
acc.	<i>harnain</i>	(<i>ħar-na-a-i-in</i>)
dat.	<i>harnau</i>	(<i>ħar-na-a-ú</i>)
	<i>pankawē</i>	(<i>pa-an-ga-u-e</i>)

208. *utne* 'country'.

Singular		
nom.-acc.	<i>utne</i>	(<i>ud-ne-e, ud-ni-e, ud-ni</i>)
gen.	<i>utneyas</i>	(<i>ud-ne-ya-aš</i>)
dat.	<i>utne</i>	(<i>ud-ne-e, ud-ni-e, ud-ni</i>)
	<i>utneya</i>	(<i>ud-ni-ya, ud-ne-e-ya</i>)
abl.	<i>utneyaz</i>	(<i>ud-ni-ya-az</i>)

Plural

nom.-acc.	(The singular <i>utne</i> is used in plural value).	
gen.-dat.	<i>utneyas</i>	(<i>KUR-e-aš</i>)

l-stems

209. *wastul* 'injury, sin', *pahurul* 'brazier'(?), *sesarul* 'strainer', *taksul* 'peace', *memal* 'meal', *tawal*, a sacrificial drink, *shiyal* 'girdle', *tayazel* 'theft', *sarnenkzel* 'restitution'.

Singular		
nom.-acc.	<i>wastul</i>	(<i>wa-aš-túl, ták-šu-ul, me-ma-al, ta-wa-al, ta-ya-zi-il, šar-ni-ik-zi-el</i>)
gen.	<i>wastulas</i>	(<i>wa-aš-du-la-aš, ták-šu-la-aš, me-ma-la-aš, ta-a-u-wa-la-aš, ta-ya-zi-la-aš</i>)
dat.	<i>wastuli</i>	(<i>wa-aš-du-li, ták-šu-li, ta-wa-li</i>)
abl.	<i>pahurulaz</i>	(<i>pa-aħ-ħu-ru-la-az, iš-ħi-ya-la-az, šar-ni-ik-zi-la-az</i>)
inst.	<i>sesarulet</i>	(<i>še-ša-ru-li-it, me-ma-li-it, ta-wa-li-it</i>)

Plural

nom.-acc. (Singular *taksul* is used in plural value.)gen.-dat. *taksulas* (*ták-šu-la-aš*)*r*-stems

210. *hupar* 'large jar'(?), *kalar* 'bad, monstrous'(?), *kesar* 'hand',
kurur 'hostility', *parsur* 'bread crumbs'.

Singular

nom.-acc. *hupar* (*hu-up-pár, kal-la-ar, ki-eš-šar, ku-u-ru-ur, pá-r-šu-u-ur*)gen. *huparas* (*hu-up-pár-aš, ku-ru-ra-aš*)dat. *hupari* (*hu-u-up-pa-ri, kal-la-ri, ki-iš-ša-ri, ki-iš-ri, ku-u-ru-ri*)abl. *huparaz* (*hu-u-up-pa-ra-za, ki-iš-ša-ra-az*)inst. *kalaret* (*kal-la-ri-it, ki-iš-ša-ri-it, pá-r-šu-u-ri-it*)

Plural

nom.-acc. (Singular *hupar, kurur*, etc. are used in plural value.)

Rarer and heteroclitic forms

Singular

nom. *kesras* (*ki-eš-ši-ra-aš*)acc. *kesran* (*ki-iš-še-ra-an, kal-la-ra-an, ša-ku-wa-aš-ša-ra-an*)abl. *starz* (*ši-it-tar-za*)inst. *kesart* (*ki-iš-šar-ta*)
hupant (*hu-up-pa-an-ta*)

Plural

acc. *kesrus* (*ki-iš-še-ru-uš*)nom.-acc. *kururi* (*ku-ru-ri-ḪI.A, mi-nu-mar-ri-ḪI.A*)*n*-stems

(with reduced grade in oblique cases)

211. *henkan* 'fate, death', *sahan* 'ground rent', *inan* 'constipation'(?).

Singular

nom.-acc. *henkan* (*hi-in-kán, hi-en-kán, ša-aḥ-ḥa-an, i-na-an*)gen. *henkanas* (*hi-in-ga-na-aš, i-na-na-aš, ša-aḥ-ḥa-an-na-aš*)dat. *henkani* (*hi-in-ga-ni, ša-aḥ-ḥa-ni*)abl. *henkanaz* (*hi-in-ga-na-az, hi-in-ga-na-za, ša-aḥ-ḥa-na-za*)inst. *sahanet* (*ša-aḥ-ḥa-ni-it*)

Plural

nom.-acc. *sahana* (*ša-aḥ-ḥa-na*)

	Rarer form	
	Singular	
inst.	<i>shimant</i>	(iš- <i>hi</i> -ma-an-ta)

n-stems

(with zero grade in oblique cases)

212. *tekan* 'ground', *laman* 'name', *kusan* 'pay'.

	Singular	
nom.-acc.	<i>tekan</i>	(te-kán, la-a-ma-an, ku-uš-ša-an)
gen.	<i>taknas</i>	(ták-na-aš, lam-na-aš)
dat.	<i>takni</i>	(ták-ni-i, ku-uš-ni)
abl.	<i>taknaz</i>	(ták-na-az, ták-na-a-az, ku-uš-na-az)
inst.	<i>lamnet</i>	(lam-ni-it)

	Rarer form	
acc.	<i>takan</i>	(da-ga-an, ta-ga-a-an)

Heteroclititic nouns in *as*, (*a*)*nas***212a.** *memiyas* 'word', *arkamas* 'tribute', *haras* 'eagle'.

	Singular	
nom.	<i>memiyas</i>	(me-mi-aš, me-mi-ya-aš, ar-kam-ma-aš, ha-a-ra-aš)
acc.	{ <i>memiyan</i> <i>haranan</i>	(me-mi-an, me-mi-ya-an, ar-kam-ma-an) (ha-a-ra-na-an)
gen.	<i>memiyanas</i>	(me-mi-ya-na-aš, ar-kam-ma-na-aš, ha-a-ra-na-aš, ha-a-ra-na-aš)
dat.	{ <i>memiyani</i> <i>memini</i>	(me-mi-ya-ni, me-mi-ya-an-ni) (me-mi-ni)
abl.	{ <i>memiyanaz</i> <i>meminaz</i>	(me-mi-ya-na-az) (me-mi-na-az)
	Plural	
acc.	<i>memiyanus</i>	(me-mi-ya-nu-uš)
gen.-dat.	<i>memiyas</i>	(me-mi-ya-aš)

r/n-stems**213.** *watar* 'water'.

	Singular	
nom.-acc.	<i>watar</i>	(wa-a-tar)
gen.	<i>wetas</i>	(ú-wi-te-na-aš, ú-e-te-na-aš)
dat.	<i>weteni</i>	(ú-e-te-ni, ú-i-te-e-ni)

abl.	<i>wetenaz</i>	(<i>ú-e-te-na-az, ú-i-te-na-az</i>)
inst.	<i>wetenet</i>	(<i>ú-e-te-ni-it, ú-i-te-ni-it</i>)

Rarer forms

nom.	<i>wetar</i>	(<i>ú-wi-ta-ar, ú-i-da-a-ar</i>)
gen.	<i>wetnas</i>	(<i>ú-e-it-na-aš</i>)
inst.	<i>wetant</i>	(<i>ú-e-da-an-da</i>)

r/n-stems

(with reduced grade in the oblique cases)

214. *utar* 'word', *eshar* 'blood', *stamar* 'ear', *kutar* 'neck'.

Singular

nom.-acc.	<i>utar</i>	(<i>ut-tar, ud-da-a-ar, e-eš-ħar, GEŠTUK-ar, ku-ut-tar</i>)
gen.	<i>utanas</i>	(<i>ud-da-na-aš, e-eš-ħa-na-aš</i>)
dat.	<i>utani</i>	(<i>ud-da-ni-i, ud-da-a-ni, e-eš-ħa-ni, ku-ut-ta-ni</i>)
abl.	<i>utanaz</i>	(<i>ud-da-na-az, ud-da-a-na-az</i>)
inst.	<i>utanet</i>	(<i>ud-da-ni-it, ku-ut-ta-ni-it</i>)

Plural

nom.-acc. (Singular *utar* is used in plural value, usually with orthography *ud-da-a-ar*.)

Rarer and heteroclitic forms

Singular

nom.-acc.	<i>esar</i>	(= <i>eshar; e-eš-šar</i>)
gen.	<i>esnas</i>	(<i>e-eš-na-aš, iš-na-aš</i>)
inst.	<i>eshant</i>	(<i>e-eš-ħa-an-ta, iš-ta-ma-an-ta</i>)

r/n-stems(with zero grade in the oblique cases—nouns in *ur, unas*)**215.** *mehur* 'time of day, point of time', *pahur* 'fire', *pankur* 'family'(?), *sehur*, meaning unknown.

Singular

nom.-acc.	<i>mehur</i>	(<i>me-ħur, pa-aħ-ħur, pa-aħ-ħu-ur, pa-an-ku-ur, še-e-ħur</i>)
gen.	<i>mehunas</i>	(<i>me-e-ħu-na-aš, pa-an-ku-na-aš</i>)
dat.	<i>mehuni</i>	(<i>me-e-ħu-ni, pa-aħ-ħu-ni, še-e-ħu-ni</i>)
abl.	<i>pahunaz</i>	(<i>pa-aħ-ħu-na-az, pa-aħ-ħu-na-za</i>)
inst.	<i>pankunet</i>	(<i>pa-an-ku-ni-it</i>)

Rarer and heteroclitic forms

Singular

nom.-acc.	<i>pahwar</i>	(<i>pa-aḥ-ḥu-wa-ar</i>)
gen.	<i>pahwenas</i>	(<i>pa-aḥ-ḥu-e-na-aš</i>)
dat.	<i>pahweni</i>	(<i>pa-aḥ-ḥu-e-ni, me-e-ḥu-e-ni</i>)
abl.	<i>sehunz</i>	(<i>še-ḥu-un-za</i>)

r/n-stems(with zero grade in oblique cases—nouns in *tar*)

216. *papratar* 'uncleanness, guilt', *apatar* 'a taking', *sulatar* 'anger', *asiyawatar* 'affection', *spatar* 'spoon'(?), *zankilatar* 'punishment', *hwitar* 'the animals'.

Singular

nom.-acc.	<i>papratar</i>	(<i>pa-ap-ra-tar, ap-pa-a-tar, za-an-ki-la-tar, ḥu-i-ta-ar</i>)
gen.	<i>papranas</i>	(<i>pa-ap-ra-an-na-aš, ap-pa-an-na-aš</i>)
dat.	<i>paprani</i>	(<i>pa-ap-ra-an-ni, šu-ul-la-an-ni</i>)
abl.	<i>papranaz</i>	(<i>pa-ap-ra-an-na-az, šu-ul-la-an-na-az</i>)
inst.	<i>asiyawanet</i>	(<i>a-aš-ši-ya-u-wa-an-ni-it, iš-pa-an-ni-it</i>)

Plural

nom.-acc.	{ <i>zankilatari</i> (<i>za-an-ki-la-tar-ri-ḪI.A</i>) (The singular <i>zankilatar</i> is used in plural value.) }	
-----------	--	--

Rarer and heteroclitic forms

Singular

gen.	<i>hwitnas</i>	(<i>ḥu-it-na-aš</i>)
abl.	<i>hasananz</i>	(<i>ḥa-aš-ša-an-na-an-za</i>)
inst.	<i>hwitnet</i>	(<i>ḥu-u-it-ni-it</i>)

r/n-stems(with zero grade in oblique cases—nouns in *sar*)

217. *hanesar* 'justice, court, suit', *asesar* 'assembly', *tunakesar*, a place, *tuhvesar*, an implement used in ritual purification, *upesar* 'something sent, gift'.

Singular

nom.-acc.	<i>hanesar</i>	(<i>ḥa-an-ni-eš-šar, a-še-eš-šar, tūḥ-ḥu-e-eš-šar</i>)
gen.	<i>hanesnas</i>	(<i>ḥa-an-ne-eš-na-aš, tu-un-na-ki-eš-na-aš</i>)
dat.	<i>hanesni</i>	(<i>ḥa-an-ne-eš-ni, a-še-eš-ni</i>)
abl.	<i>hanesnaz</i>	(<i>ḥa-an-ne-eš-na-az, a-še-eš-na-za</i>)
inst.	<i>hanesnet</i>	(<i>ḥa-an-ne-eš-ni-it, tūḥ-ḥu-i-iš-ni-it</i>)

	Plural	
nom.-acc.	<i>upesari</i>	(<i>up-pí-eš-šar-ri-ŮI.A</i>)
	(The singulars <i>kuresar</i> and <i>upesar</i> are used in plural value.)	

Rarer and heteroclitic forms

	Singular	
acc.	<i>upesaran</i>	(<i>up-pí-eš-ša-ra-an</i>)
dat.	<i>tunakesna</i>	(<i>tu-un-na-ki-iš-na, tu-un-na-ak-eš-na</i>)
abl.	<i>hanesnanz</i>	(<i>ha-an-ni-iš-na-an-za</i>)

r/n-stems

(concrete nouns in *war*)

218. *asawar* 'sheepfold, goat pen', *partawar* 'nest'.

	Singular	
nom.-acc.	<i>asawar</i>	(<i>a-ša-a-u-ar, pár-ta-u-wa-ar</i>)
dat.	<i>asauni</i>	(<i>a-ša-ú-nì</i>)
abl.	<i>asaunaz</i>	(<i>a-ša-u-na-az</i>)
inst.	<i>partaunet</i>	(<i>pár-ta-a-u-ni-ìt</i>)

r/n-stems

(verbal nouns in *war* and *mar*)⁹²

219. *tiyawar* 'a placing', *arkwar* 'prayer', *sarnenkwar* 'restitution', *arnumar* 'a bringing', *tarnumar* 'a putting in'.

	Singular	
nom.-acc.	<i>tiyawar</i>	(<i>ti-ya-u-wa-ar, ar-ku-wa-ar</i>)
gen.	<i>tiyawas</i>	(<i>ti-ya-u-wa-aš, šar-ni-in-ku-wa-aš</i>)
nom.-acc.	<i>arnumar</i>	(<i>a-ar-nu-mar, tar-nu-mar</i>)
gen.	<i>arnumas</i>	(<i>ar-nu-um-ma-aš, tar-nu-um-ma-aš</i>)

	Rarer form	
gen.	<i>sarnenkwes</i>	(<i>šar-ni-in-ku-e-eš</i>) ⁹³

s-stems

220. *nepes* 'sky', *has* 'soap', *tapus* 'side'.

	Singular	
nom.-acc.	<i>nepes</i>	(<i>ne-pí-iš, ha-a-aš</i>)
gen.	<i>nepesas</i>	(<i>ne-pí-ša-aš</i>)

⁹² Friedrich, ZA NF 1. 9-15; Götze, Hatt. 140; Sturtevant, AJP 50. 360 fn. 5.

⁹³ Delaporte, Gramm. 73, cites "*dāweš*" without reference.

dat.	<i>nepesi</i>	(<i>ne-pi-ši</i>)
abl.	<i>nepesaz</i>	(<i>ne-pi-ša-az, ne-pi-ša-za</i>)

Variant forms

nom.	<i>tapwas</i>	(<i>ta-pu-wa-aš</i>)
acc.	<i>hasan</i>	(<i>ha-aš-ša-an</i>)
gen.	<i>nepiyas</i>	(<i>ne-pi-aš</i>)
	<i>tapuwas</i>	(<i>ta-pu-wa-aš</i>)
dat.	<i>tapusa</i>	(<i>ta-pu-ša, ta-pu-ū-ša</i>)
	<i>nepesz</i>	(<i>ne-pi-iš-za</i>)
abl.	<i>tapusz</i>	(<i>ta-pu-uš-za</i>)
	<i>nepesanz</i>	(<i>ne-pi-ša-an-za</i>)

h-stem**221.** *iskaruh* (or *skaruh*), a vessel for wine.

Singular

nom.-acc.	<i>iskaruh</i>	(<i>iš-qa-ru-uh</i>)
dat.	<i>iskarui</i>	(<i>iš-qa-ru-hi</i>)
inst.	<i>iskaruihet</i>	(<i>iš-qa-ru-hi-it</i>)

t-stems

222. *humanz* 'all, whole', *zeyanz* 'cooked', *anz* 'hot', *kestwanz* 'hungry', *aniyaz* 'performance', *tuskaraz* 'joy', *kasz* 'hunger', *kartimiyaz* 'anger', *purut* 'surface, ground, roof'.

Singular

nom.	<i>humanz</i>	(<i>hu-u-ma-an-za, a-ni-ya-az, ka-a-aš-za, kar-tim-mi-ya-az</i>)
acc.	<i>humantan</i>	(<i>hu-u-ma-an-da-an, zé-e-an-da-an, a-ni-ya-at-ta-an, ka-aš-ta-an</i>)
neut.	<i>human</i>	(<i>hu-u-ma-an, a-a-an, pu-ru-ut</i>)
gen.	<i>humantas</i>	(<i>hu-u-ma-an-da-aš, a-ni-ya-at-ta-aš, tu-uš-ka-ra-at-ta-aš</i>)
dat.	<i>humanti</i>	(<i>hu-u-ma-an-ti, hu-u-ma-an-ti-i, a-ni-ya-at-ti, ka-a-aš-ti</i>)
abl.	<i>humantaz</i>	(<i>hu-u-ma-an-da-za, hu-u-ma-an-da-az, zé-e-ya-ta-za, du-uš-ka-ra-at-ta-az, pu-ru-ud-da-az-za</i> —Bo. 604.3.9)
inst.	<i>zeyantet</i>	(<i>zé-e-ya-an-te-it, a-a-an-te-it, ka-a-aš-ti-ta, pu-ru-ut-ti-it</i>)

Plural		
nom.	<i>humantes</i>	(<i>hu-u-ma-an-te-eš, ki-iš-du-wa-an-te-eš</i>)
acc.	<i>humantus</i>	(<i>hu-u-ma-an-du-uš, kar-tim-mi-ya-ad-du-uš</i>)
neut.	<i>humanta</i>	(<i>hu-u-ma-an-da, zé-ya-an-ta</i>)
gen.-dat.	<i>humantas</i>	(<i>hu-u-ma-an-da-aš, a-ni-ya-at-ta-aš</i>)

Rarer and heteroclitic forms

Singular		
gen.	<i>nekuz</i>	(<i>ne-ku-uz, UD-az</i>)
dat.	<i>humantiya</i>	(<i>hu-u-ma-an-ti-ya</i>)
	<i>kestwanta</i>	(<i>ki-iš-du-wa-an-da, ha-an-da, mi-an-da, tak-ka-li-ya-an-da</i>)

CHAPTER V

PRONOUNS

I. PERSONAL AND POSSESSIVE PRONOUNS¹

223. Hittite has four fully declined personal pronouns. *uk* 'ego', *zek* 'tu', *wes* 'nos', and *sumes* 'vos'. There are also unemphatic pronouns that may be used instead of the oblique cases of any of these, and besides *-se* 'ei, sibi', and *-smas* 'eis, sibi'. A feature of the early and archaic texts is the use of enclitic possessive pronouns *-mes* 'meus', *-tes* 'tuus', *-ses* 'eius, suus', *-smes* 'vester, eorum, suus'. In texts of all periods these words occur in prepositional phrases such as *kateme* 'with me' (originally 'at my hand') and *starnesme* 'among them' (i.e. 'in their midst').²

223a. The later texts frequently show Akkadian possessive suffixes, which probably represent Hittite *-mes*, *-tes*, *-ses*, and *-smes*.

224. Petersen has shown that the personal pronouns had in primitive IE only a rudimentary case system and less variety of form than has generally been supposed. Hittite preserves traces of only a minority of the forms indicated for IE, and it is therefore likely that the interval between primitive IH and primitive IE saw the beginnings of the process which has given us the more or less complete case systems of the personal pronouns of the historical IE languages. I have selected in the following paradigm those of Petersen's IE forms that have contributed to the Hittite personal and possessive pronouns. I do not mean to imply that IH possessed no others; it is altogether likely that Hittite lost some of the original material just as Skt. lost IE **me* and **tē* and Gk. lost IE **meghi*. Until we have more material at our disposal we cannot hope to reconstruct IH with the degree of completeness that is possible for IE. On the other hand it is safe to ascribe to IH all the forms in the following paradigm.

I have not labelled the forms quite as Petersen does. As he himself

¹ Petersen, Lang. 6. 164-93; Milewski, RO 8. 106-9.

² Friedrich, ZA NF 2. 295 fn. 1., 3. 182 f., Vert. 2. 143 f. The translation 'at my hand' assumes that IH **kmt-*, whence Goth. *handus* 'hand', is the word whose acc. yielded Gk. *kará* and Hittite *kata*, and whose dat. **kmti*, **kmtē* yielded Gk. *karai* and Hittite *kate-*; cf. TAPA 62. 23 f.

observes, the primitive IE system implies an earlier stage which distinguished only between the nominative and an oblique case that performed all other functions. In order to derive Hittite from Petersen's reconstructed forms it is necessary to disregard all distinctions between the oblique cases, and that indicates that such distinctions were foreign to the IH personal pronouns. Petersen (p. 174) correctly derives Osc. *tiium*, *tiú* 'tu' from IE *tē*, and compares it with Hittite *zek* 'tu', which must go back to IH *tē*. Hittite presents IH *tū* and *twe* in the oblique cases, and since IH *twe* is to be assigned to the oblique case on IE evidence also, while *tu* differs from it only in ablaut, I have tentatively assigned IH *twe* and *tū* to the oblique case and IH *tē* to the nominative. Hittite *amuk* 'me, mihi' shows that Gk. *ἐμέ* must come from IH *me*, as we might infer even without the new evidence, since full grade vowels in two successive syllables cannot be original.

IH Personal Pronouns

	First singular	Second singular	Third singular
nom.	<i>eg</i>	<i>tē</i>	
	<i>me</i>	<i>twe</i>	
obl.	<i>mē</i>	<i>tū</i>	<i>soi</i>
	<i>moi</i>	<i>toi</i>	
	First plural	Second plural	
nom.	<i>weis</i>		
obl.	<i>ns</i>	<i>usme</i> ³	
	<i>nos</i>		

225. Although case distinctions are less sharply drawn in the Hittite personal pronouns than in the singular of nouns and adjectives, we must nevertheless recognize a fairly complete case system of the same general pattern as that already studied in Chapter IV. There are, however, numerous traces of the less extensive but more sharply characterized system of IH. Thus *uk* 'I' and *amuk* 'me', *wes* 'we' and *anzas* 'us', *zek* 'tu' and *tuk* 'te' preserve the old difference of stem between corresponding nom. and oblique case. The distinction between acc. and dat. which is constant in the singular noun does not exist in the personal pronouns of the first and second person.

³ This form is due to Thurneysen, KZ 27. 175 fn. 2, and Sommer, Gr. Lautst. 155. Pedersen's argument, *Symboli Philologici* O. A. Danielsson Octogenario Dicati, 364-6, in favor of **yusme* is not cogent, especially as it conflicts with the new evidence from Hittite.

226. Another striking difference from nouns and adjectives is the frequent strengthening of the pronominal forms by appended *-a*. This is not indicated in the following paradigms, but it is recorded in the accompanying syllabic transcriptions. In a large majority of its occurrences after pronouns such an *-a* is readily interpreted as the enclitic *-a* 'and, also, even', and there can be no doubt that it was ordinarily felt either as a connective or as an emphatic particle. The fact remains, however, that *a* is peculiarly common after pronominal forms ending in *k*, and besides we meet *am-mu-uq-qa-ya* (KBo. 3. 6. 4. 36). For these reasons and because of the affinity of the IE enclitic particle *ge/o* for the personal pronouns it has become customary to trace final *k* of *amuk*, *zik*, and *tuk* to IE (i.e. IH) *ge* or *go*. Against any such etymology is the frequent double writing of *k*. We must rather trace final *k* in these forms to the analogy of *uk* 'I' < pre-Hittite *ek* < IH *eg* [224]. In such a form as *amukaya*, and perhaps elsewhere, we may surmise contamination with a particle cognate with IE *ge/o*.

Use and History of the Several Forms

227. *uk* (*ú-uk*) 'ego' comes from IH *eg*. It owes its vowel to the acc.-dat. *amuk*, which in turn got it from *tuk*, the corresponding form of the second person. For the occasional double writing of the consonant before enclitics, see [67].

amuk (*am-mu-uk*) 'me, mihi' comes from IH *me*, the oblique case form. Its vowel is due to assimilation to the corresponding form of the second person, IH *tū*. After pre-Hittite *ame* had become **amu*, the association of **ek* 'ego' and **amu* 'me, mihi' changed the former to *uk* and the latter to *amuk*.⁴ Except in the earliest texts *amuk* is frequently used also as nom. s.

amel (*am-me-el*) 'mei, meus' is IH *me* with the genitival *el* of most Hittite pronouns [261].

ametaz (*am-me-e-da-az*) 'a me' contains IH *me* and ablative *az* of the noun declension. The intervocalic *t* comes from pronominal forms like *etas* 'eius', etc. [260]. The nearest analogue outside the personal pronouns is *tametaz* 'ab altero'.⁵

⁴ Possibly a contributing factor was an inherited **ame-ka* < IH *me-go* 'me quidem', which was reinterpreted as **amek-a* 'et me'; but cf. [226]. Goth. *mik* beside *ik* is probably a parallel to Hittite *amuk* beside *uk*.

⁵ An alternative is suggested by Milewski, op. cit. Perhaps pre-Hittite had a form **ametas*, with *tas* < IH *tos* (cf. Skt. *mukhatas* 'from the mouth', Lat. *funditus* 'from the bottom'), which fell under the influence of the ending *az* of the nouns.

228. *zek* (*zi-ik*) 'tu' contains IH *tē* [224]. The final consonant comes from the corresponding form of the first person, *uk* < IH *eg* 'ego'.⁶

tuk (*tu-uk*) 'te, tibi' contains IH *tū* 'te, tibi, tui'. It got its final consonant in part from the corresponding form of the first person, *amuk* 'me, mihi', and in part from *zek* 'tu'.⁷

twel (*tu-el*) 'tui, tuus' contains IH *tū* or *twe* 'te, tibi, tui' with genitival *el* of other pronouns [261].

twetaz (*tu-e-da-az*) 'a te' is formed on IH *twe* in the same way as *ametaz* on IH *ɔme* [227].

229. *wes* (*ú-e-eš*, *ú-i-e-eš*) 'we' from IH *weis* requires no comment.

anzas (*an-za-a-aš*) 'nos, nobis' contains pre-Hittite *anz* < IH *ns* 'nos, nobis, nostri' [96, 133] and the ending *as* of the noun declension. The spread of *anzas* to the nom. after the composition of our earliest texts is parallel to the spread of *amuk* 'me, mihi' to the nom., and is due to the combined influence of all the oblique cases.

anzel (*an-zi-el*) 'of us' and *anzedaz* 'a nobis' are formed from pre-Hittite *anz* < IH *ns* in the same way as *amel* and *ametaz* from pre-Hittite *ame* < IH *ɔme*. Apparent singular forms from plural pronouns are not unknown in the IE languages (e.g. Skt. *asmat*, *yuṣmat*, Gk. *ἄμμι*, *ἔμμι*, Lat. *nostrī*, *vestrī*, *suī*, *sē*); and in Hittite they are less surprising in view of the use of singular nouns for plural [183].

230. *sumes* (*šu-me-e-eš*, *šu-um-me-eš*) 'vos' comes from IH *usme* 'vos, vobis, vestri' by metathesis of the first syllable under the influence of the synonymous *-smas* [236], and by the addition of a case ending from the noun declension. It seems likely then that the acc. value of the word is the earlier, and that the spread into the nom. merely antedated the similar spread of *amuk* 'me' and *anzas* 'nos'. No doubt it was assisted by the tendency of the noun declension to assign the pl. ending *es* to the nom.

sumas (*šu-ma-a-aš*, *šu-um-ma-aš*) 'vos, vobis' comes similarly from IH *usme* and the ending *as* of plural nouns. The rarer use of *sumas* in the nom. and of *sumes* in the dat. reminds one of the variations between the plural suffixes of masculine nouns [182].

sumel (*šu-me-el*) 'vestri, vester' comes from IH *usme* and the genitival ending of other pronouns [261]. The variant *sumenzan* comes from the gen. pl. of certain demonstratives, as *kenzan* 'horum' [262].

⁶ Possibly a contributing factor was an inherited *zeka* < IH *tē-go* 'tu quidem', which was reinterpreted as *zek-a* 'et tu'; but cf. [226].

⁷ Here again a contributing factor may have been an inherited *tuka* < IH *tu-go* 'te quidem', which was reinterpreted as *tuk-a* 'et tu'; but cf. [226].

231. *-mu* (*-mu*) 'me, mihi', *-tu* (*-du*-) 'te, tibi'. *-tu* occurs only in the phrase *-tuza*, whose second element is the sentence connective *-za*, originally *-uza* < IH *uts-o*.⁸ *-tuza*, then, comes from IH *tū-uts-o*. *-mu* comes from IH *mē* or *moi* with change of vowel due to the second person. It is not confined to the position before *-za*, and so it suggests that in pre-Hittite the enclitic *-tu* 'te, tibi' may have had a freer use.

232. *-ta* (*-ta*, *-da*) 'te, tibi' is frequently written with *tt* or *dd*, and so it certainly contains IH *t* [66]. It is probably a sandhi form of IH *toi* 'te, tibi, tui', although I do not know under what circumstances such a form arose or why *-ta* was preserved but not first person **-ma* or third person **-sa*.

233. *-me* (*-mī*) (Arzawan) 'mihi, meus', *-te* (*-ti*) (Arzawan) 'tibi, tuus', and *-se* (*-ši*, *-še*) 'ei, sibi' clearly come from IH *moi*, *toi*, and *soi* respectively.

234. *-mes* (*-mī-iš*, *-me-iš*) 'meus', *-tes* (acc. *-ti-in*) 'tuus', and *-ses* (*-ši-iš*, *-še-ša*) 'eius, suus' are the oblique case forms of the last paragraph with adjectival declension of relatively recent origin; the Arzawan dialect seems to use the undeclined enclitics in the manner of Gk. *τέκνον μοι* 'my child'. Most of the case forms of these adjectives result from the combination of a stem in *oi* with the case endings; note especially gen. s. *mas* < **mayas* [107]. Since several forms coincide with *a*-stem forms, it is not surprising to find analogical acc. s. *-man* and *-san*. Acc. pl. *-sus* is also analogical.

235. *-nas* 'nos, nobis' is the IH oblique case *nos* with no change beyond the loss of the genitive function; cf. Skt. acc.-dat.-gen. *nas*.

236. *-smas* 'vos, vobis; eis, sibi' and *-smes* 'vester, eorum, suus' are alone among Hittite and early IE pronouns in referring alike to the second and third persons. They remind one of modern European pronouns like German *Sie* 'vos', and they may reflect an early development of the same nature. Milewski [223 fn. 1] has observed that Av. *xšmaṭ* 'a vobis' and *xšmākəm* 'vestrum' preserve the stem in one of its two values. Furthermore, since the Hittite words are exclusively enclitic, we are justified in comparing the frequent pronominal element *sme/smi*, which has hitherto been called a particle; Hittite seems to show that it was in IH a pronoun meaning both 'vos' and 'is, id'. The restrictions upon its use in Hittite and generally in IE indicate that it was confined to the oblique case-functions; on the other hand it must

⁸ IH *uts* is an abl. from the pronominal stem *we, wo, u* [286], and the appended *o* is the particle discussed in [195ab]; the sandhi-form IH *ut* came to be used with the same particle, whence Skt. *uta* 'and'.

have been used both as singular and as plural (see below). I would therefore add under "plural" in the second and third columns of the IH paradigm [224] an enclitic *sme/smi*.⁹

Skt. *tasmai*, *tasmin*, etc. come from IH *to-sme*, *to-smi* 'et ei, etc.' with terminations from nouns and other pronouns [224, 247], and Skt. *asmai*, *asmin* contain the particle **e*.¹⁰ The West Germanic and Balto-Slavic languages show in place of the stem *sme/smi* a stem *me/mi*, which is readily accounted for by the theory of *s* movable [143a]. The oblique second personal pronoun IH *usme* of the paradigm [224] therefore contains IH *-sme* 'vos, vobis, vester'; the prior element may be zero grade of IH *wos*, but it may as well be the particle IH *u*.¹¹ IE *nsme* 'nos, nobis, noster' is IH *ns* assimilated to *usme*. Conversely Hittite *-smas* is IH *-sme* assimilated to Hittite *-nas* 'nos, nobis'. Hittite *-smes* 'vester, eorum, suus' comes from IH *-sme/-smi* as Hittite *-mes*, *-tes*, and *-ses* from IH *-moi*, *-toi*, and *-soi*. The evidence is not sufficient to determine how far its declension was assimilated to that of the other possessives. In particular the dat. s. may well have ended in *i*, and I have so written in the following paradigm.

Paradigms of the Personal and Possessive Pronouns

237. *uk* 'ego'.

nom.	$\begin{cases} uk \\ amuk \end{cases}$	$\begin{pmatrix} \acute{u}uk, \acute{u}ga, \acute{u}ug-ga \\ (am-mu-uk, am-mu-ga, am-mu-ug-qa, am-mu-ug-qa-ya) \end{pmatrix}$
acc.	<i>amuk</i>	$(am-mu-uk, am-mu-ug-qa, am-mu-ug-ga)$
gen.	<i>amel</i>	$(am-me-el, am-mi-el, am-me-el-la, am-me-e-la)$
dat.	<i>amuk</i>	$(am-mu-uk)$
abl.	<i>ametaz</i>	$(am-me-e-da-az, am-me-e-ta-az, am-me-e-da-za)$

Rarer uses

acc.	<i>uk</i>	$(\acute{u}uk\text{---VBoT. 120. 3. 11, 12})$
dat.	<i>uk</i>	$(\acute{u}ga\text{---KUB 6. 45. 3. 60; } \acute{u}ug-qa\text{---KUB 14. 3. 1. 4})$

The nom. *uk* is chiefly found in early documents, in which, on the other hand, *amuk* rarely occurs as nom. After *amuk* had established itself as nom., acc., and dat., a few archaizers employed *uk* as acc. or dat.¹²

238. *zek* 'tu'.

nom.	<i>zek</i>	$(zi-ik, zi-ga, zi-i-ga, zi-ig-ga, zi-ig-qa)$
acc.	<i>tuk</i>	$(tu-uk, tu-ga, tu-ug-ga, tu-ug-qa, du-ug-qa)$

⁹ Not also under "singular", because the singular use is not found in Hittite.

¹⁰ Brugmann, Grund. 2^a. 3. 983 f.

¹¹ Brugmann, Grund. 2^a. 3. 981-3.

¹² Sommer, AU 33.

gen.	<i>twel</i>	(<i>tu-el, tu-e-el, tu-el-la</i>)
dat.	<i>tuk</i>	(<i>tu-uk, tu-ga</i>)
abl.	<i>twetaz</i>	(<i>tu-e-da-az, tu-e-ta-za</i>)

239. *wes* 'nos'.

nom.	<i>wes</i>	(<i>ú-e-eš, ú-i-e-eš, ú-e-ša</i>)
	<i>anzas</i>	(<i>an-za-a-aš</i>)
acc.	<i>anzas</i>	(<i>an-za-a-aš</i>)
gen.	<i>anzel</i>	(<i>an-zi-el, an-zi-el-la</i>)
dat.	<i>anzas</i>	(<i>an-za-a-aš, an-za-a-aš-ša</i>)
abl.	<i>anzetaz</i>	(<i>an-zi-da-az, an-zi-ta-az</i>)

Nom. *wes* occurs chiefly in early texts, its place being taken in later texts by *anzas*.

240. *sumes* 'vos'.

nom.	<i>sumes</i>	(<i>šu-me-eš, šu-me-e-eš, šu-um-me-eš, šu-me-e-ša</i>)
acc.	<i>sumes</i>	(<i>šu-me-eš</i>)
	<i>sumas</i>	(<i>šu-ma-a-aš, šu-ma-ša</i>)
gen.	<i>sumel</i>	(<i>šu-me-el, šu-me-e-el</i>)
	<i>sumenzan</i>	(<i>šu-me-en-za-an, šu-me-in-za-an</i>)
dat.	<i>sumas</i>	(<i>šu-ma-a-aš, šu-ma-aš, šu-um-ma-aš, šu-ma-a-ša, šu-ma-a-aš-ša</i>)
abl.	<i>sumetaz</i>	(? <i>šu-me-e-da-az</i> ¹³)

Rarer uses

nom.	<i>sumas</i>	(<i>šu-ma-a-aš</i>)
dat.	<i>sumes</i>	(<i>šu-me-e-eš</i>)

241. Enclitic Personal Pronouns.

(The citations in syllabic transcription are merely illustrations; all the forms except *-me* and *-te* are very frequent).

-mu 'mihi, me' (*nu-mu* 'et mihi, et me', *nu-mu-kán* 'et mihi igitur', *na-aš-mu-kán* 'et is me igitur', *nu-wa-ra-aš-mu* 'et is mihi')

-me 'mihi, meus' (*-mi*—VBoT 1. 3-5)¹⁴

-ta 'tibi, te' (*nu-ut-ta* 'et te, et tibi', *nu-ut-ták-kán* 'et tibi igitur', *am-mu-uk-ma-wa-at-ta* 'ego autem te')

¹³ Cited by Hrozný, SH 118, with hesitation from a text since published as KUB 23. 103. 2. 26. The context is so badly mutilated that the meaning of the word is matter for conjecture. Cf. Friedrich, AOF 6. 306.

¹⁴ Arzawan *-me* and *-te* seem to correspond in use to the declined possessives [234] of the other documents.

- tu*- 'tibi, te' (*nu-ud-du-za* 'et te, et tibi', ¹⁵UTU.ŠI-*wa-ad-du-za-kán* 'rex tibi igitur')
 -*te* 'tibi, tuus' (-*ti*—VBoT 1. 7–10)¹⁴
 -*se* 'ei, sibi' (*nu-uš-ši*, *nu-uš-še*,¹⁵ *ta-aš-še*,¹⁶ *e-ḫu-ši*, *ták-ku-uš-ši*, *am-mu-uk-ma-aš-ši*)
 -*nas* 'nobis, nos' (*nu-un-na-aš* 'et nobis, et nos', A.BU.YA-*an-na-aš-za* 'pater meus nos')
 -*smas* 'vobis, vos' (*nu-uš-ma-aš*, 'et vobis, et vos', *nu-uš-ma-ša-at* 'et vos id', *nu-uš-ma-aš-kán* 'et vos igitur')
 -*smas* 'eis, sibi' (*nu-uš-ma-aš*, *nu-uš-ma-aš-kán*. *nu-uš-ma-aš-at*, *na-aš-ma-aš-ma-aš*)¹⁷

Enclitic Possessives

242. -*mes* 'meus'.

Singular

nom.	- <i>mes</i>	(<i>at-ta-aš-mi-iš</i> , <i>ḫa-lu-ga-tal-aš-mi-iš</i> , ¹⁵ UTU.ŠI- <i>me-iš</i>)
acc.	{- <i>men</i>	(<i>ḫa-lu-ga-tal-la-an-mi-in</i>)
	{- <i>man</i>	(ŠU- <i>an-ma-an</i> —KUB 14. 3. 1. 12, <i>šar-li-zi-ma-an</i> —KUB 23. 11. 2. 22)
neut.	- <i>met</i>	(LÜ- <i>tar-mi-it</i> , <i>ša-aḫ-ḫa-me-it</i> , ^{GIŠ} TUKUL- <i>li-me-it</i>)
gen.	- <i>mas</i>	(<i>at-ta-aš-ma-aš</i>)
dat.	- <i>me</i>	(<i>ku-uš-ša-ni-mi</i> , <i>kat-ti-mi</i>)

Plural

nom.	- <i>mes</i>	(<i>tu-e-ig-ga-aš-mi-e-eš</i>)
------	--------------	----------------------------------

243. -*tes* 'tuus'.

Singular

acc.	- <i>ten</i>	(<i>ḫa-lu-ga-tal-la-at-ti-in</i>)
gen.	- <i>tas</i>	(<i>kar-di-aš-ta-aš</i>)
dat.	- <i>te</i>	(<i>ku-uš-ša-ni-ti</i> , <i>kat-ti-ti</i>)
inst.	- <i>tet</i>	(KAP- <i>la-az-te-et</i>)

244. -*ses* 'eius, suus'.

Singular

nom.	- <i>ses</i>	(<i>iš-ḫa-aš-ši-iš</i> , <i>iš-ḫa-aš-ši-ša</i> , <i>iš-ḫa-aš-še-ša</i> , <i>ad-da-aš-ši-iš-ša</i>)
acc.	{- <i>sen</i>	(EN- <i>iš-ši-in</i>)
	{- <i>san</i>	(<i>at-ta-aš-ša-an</i>)

¹⁵ KBo. 3. 34. 2. 33, 34; 6. 2. 1. 50; 6. 3. 1. 30; etc.¹⁶ KBo. 6. 2. 2. 44; 6. 3. 2. 7; etc.¹⁷ Enclitic -*smas* seems to mean 'eos' in KBo. 3. 3. 3. 11; but cf. Sommer, BoSt. 7. 52, and fn. 10.

neut.	-set	(<i>ku-uš-ša-ni-iš-ši-it, pi-e-da-aš-ši-it, i-wa-ru-ši-it, i-wa-ru-uš-še-it, ku-uš-ša-an-še-it, ut-tar-še-it, a-aš-šu-še-it-ta, ku-uš-ša-aš-še-it-ta</i>)
gen.	-sas	(<i>an-na-ša-aš, gi-im-ra-aš-ša-aš, at-ta-aš-ša-ša</i>)
dat.	-se	(<i>at-ti-ši, an-ni-iš-ši, kat-ti-iš-ši, pi-di-iš-ši, pi-e-te-ši, É-ri-iš-ši</i>)
inst.	-set	(<i>šar-ḫu-wa-an-ta-az-še-it</i>)
Plural		
nom.	-ses	(<i>ga-i-na-aš-še-is, ta-pa-ri-aš-ši-e-eš</i>)
acc.	-sus	(<i>šar-ḫu-wa-an-du-uš-šu-uš</i>)
neut.	-se	(<i>pár-na-še-e-a, pár-na-aš-še-ya</i> ¹⁸)

245. -smes 'eorum, suus; vester'.¹⁹

Singular

acc.	-sman	(? <i>an-na-aš-ma-an-na</i> —Code §191)
neut.	-smet	(<i>e-eš-ḫar-šum-mi-it, še-ku-nu-uš-me-it, EGIR-an-ša-me-it, iš-ḫi-al-še-me-it-ta, KUR-e-še-me-it, ut-ni-iš-me-it, KUR-še-me-it-ta</i>)
dat.	-smi	(<i>iš-tar-ni-iš-mi, kat-ti-iš-šum-mi</i>)

Plural

nom.	-smes	(<i>a-ri-eš-me-eš</i>)
dat.	-smas	(<i>iš-ḫa-ša-aš-ma-aš-ša-an</i>)

II. DEMONSTRATIVES, INDEFINITES, RELATIVE, INTERROGATIVE²⁰

1. Stems

-as, tas, nas

246. The commonest of all Hittite pronouns is the enclitic -as 'is'; it may as well be called the personal pronoun of the third person, although in form it belongs with the demonstratives. It occurs only in nom. and acc. of both genders and both numbers; it follows the declension of *a*-stem nouns, except that the nom. pl. masc. is -as, and the nom.-acc. pl. neut. is either -a or -e.²¹ The enclitic -as is always

¹⁸ The oft-repeated phrase in the Code, *parnaseya suwaezi* (*pár-na-aš-še-e-a šu-wa-a-iz-zi*), surely means 'and he gives his estate as security'. This is Götze's (ZA NF 2. 261-6) interpretation, except that he considered -se as the personal pronoun meaning 'ei'.

¹⁹ Friedrich, Vert. 1. 81 fn. 2.

²⁰ Friedrich, ZA NF 2. 286-96; Milewski, RO 8.106-8.

²¹ Friedrich, ZA NF 2. 289-96, set up the single form -i on the basis particularly of *ma-a-ni-za* 'si ea' and *ku-wa-at-wa-ri* 'cur ea', but *ne* and *ne-e* 'et ea' as well as

appended to the first word of its sentence; e.g. *tukas* (*tu-uq-qa-aš*) 'tibi is', *naman* (*nam-ma-an*) 'tū eum', *amukman* (*am-mu-uk-ma-an*) 'ego autem eum'.

Very frequently enclitic *-as* is attached to the sentence connectives *ta* (confined to archaic and archaizing texts) and *nu*; e.g. *tan* (*ta-an*) 'et eum', *nus* (*nu-uš*) 'et eos'.²² Other cases of *-as* after *nu* might be expected to appear as **nu-aš* or the like; but we find only *nas* (*na-aš*) etc. Probably the inherited phrase *nus* 'et eos' and the inherited phrases *tan* 'et eum' etc. induced *nan* 'et eum' etc. by analogy.

247. Hittite *-as* 'is' contains the pronominal stem that appears in Skt. *asya*, Av. *ahe* 'eius', Osc. *es-īdum* 'idem', etc.; but as is natural in an enclitic, it shows the vowel *o* instead of *e*. Probably the stem was in IH declined throughout when accented, but as an enclitic was confined to the cases in which it is employed in Hittite, with the added restriction to be mentioned in the next paragraph.

The Hittite phrase *tan* 'et eum' must come from IH *tom* 'et eum', and this must be the source of the IE pronominal stem *to-*. The short vowel of IE shows that in IH the contraction product of *to* + *om* had a short vowel. Possibly we should assume zero grade of the sentence connective; but more probably the analogy of other phrases in which *-os* was appended to words with final consonant had shortened a phonologically regular **tōm*. IH evidently did not append the nom. s. *-os* to the connective *to*; for if IH had employed **tos* IE would not have given up this regular form in favor of **so* (Skt. *sa*, Gk. *ὁ*, Goth. *sa*).²³ In all probability, then, IH did not possess a nom. s. *-os*. That is the situation which made possible the suppletion of the paradigm of IE *to-* with nom. s. masc. and fem. of the pronoun treated in [249]. But Hittite indicates that IH *-om*, and therefore *tom*, was defective also in all oblique cases except the acc. The sentence connective, however, might be followed by other enclitic pronouns, as is shown by Hittite *tase* (*ta-aš-še*) 'et ei, et sibi' [231-233]. This provides at last a satisfactory explanation of the various elements that stand between the IE stem *to-* and its case endings;

other pronominal neuter plurals prove that the form is *-e*. Friedrich's derivation of *ta-a* 'et ea' from *ta* + *i* is not in accord with Hittite phonology, and *ta* + *e* would serve no better; we must assume an alternate form *-a*.

²² Ungnad, ZDMG 74. 417-22, ZA NF 2. 104 fn. 1; Friedrich, ZA NF 2. 293 f.

²³ So Petersen, AJP 53. 194 fn. 4. It would be easy, however, to find many parallels for the development that he objects to. E.g. Vedic *ayos* 'of these two' is supplanted in Classical Skt. by anomalous *anayos*. I see no validity at all in the remainder of Petersen's argument.

they are not particles but the original pronominal stems that were appended to the sentence connective. Skt. *tasmin* comes from IH *to-smi* 'et eum, et ei, et eius' [236], and the other *sm* forms represent the alternative IH *to-sme* with endings from the noun declension. The IE nom. pl. masc. *toi* is IH *to-i* 'et id', with the collective neut. s. referring to a pl. antecedent as often in Hittite. From this form were made the oblique cases of the masc.-neut. pl. with case endings from nouns or other pronouns. The gen. s. masc. and the oblique cases of the fem. s. must contain the pronominal stem **syo* (Skt. *tasya*, *tasyās*) or **so* (Goth. *þis*, *þizōs*), or possibly the "reflexive" **soi/se*. The original connective force of the stem *to-* is still apparent in early Skt., Gk., and Germanic, where the pronoun and the adverbs containing it tend to stand at the head of the sentence while referring to something in the preceding context. Especially cogent is the so-called relative use of the article in Homer, in certain later Gk. dialects, and in Germanic.

*etas*²⁴

248. The comparatively rare defective pronoun *etas* 'eius' lacks nom. and acc. s. and all plural cases. While Hittite usage scarcely proves the identity of this stem with that of the enclitic *-as* 'is', it is nevertheless probable that dat. *eti*, *etani*, etc. are formed upon the stem *e-* (: Osc. *es-idum*, Skt. *asya* [247]) with formative *t* [260].

*sas*²⁵

249. Hittite *sas* 'is' is confined to archaic and archaizing texts, where it stands at the head of the sentence without other sentence connective. In fact, the rather scanty material available does not disclose any difference in use between *sas* and the phrase *tas* 'et is' [246], except that *sas* lacks a nom.-acc. s. neut. and possesses two, possibly three, oblique case forms. Undoubtedly, then, the stem is to be identified with IE *so*, *sā*, which supplements the declension of IE *tom*. The Hittite nom. therefore has an analogical final *s*. Since OLat. has acc. *sum*, *sam*, and *sōs* one should not be too certain that the IH pronoun was confined to the nom. s. masc. or the IE pronoun to the nom. s. masc. and fem., as is usually assumed. There is no difficulty in supposing that pre-IE had a full set of forms similar in value to the cases of IE *tom*, but that the latter came to be preferred in the cases in which it existed.

²⁴ Sommer, BoSt. 10. 12; Friedrich, Vert. 1. 74 f., 160

²⁵ Götze, Madd. 137.

*asi, eni, uni*²⁶

250. These three pronouns are used to refer to an antecedent mentioned previously. No difference in meaning or use has been observed. While *asi* is indeclinable, *eni* and *uni* present the rudimentary declension given in [269, 270]. No stems precisely similar to *asi* and *uni* are citable among the IE pronouns; for the etymology of *eni*, see [253].

*kas*²⁷

251. Hittite *kas* (*ka-a-aš*) 'this' shows a stem *ke*-²⁸ in most of its forms (e.g. gen. *ki-e-el*, dat. *ki-e-da-ni*), but *ki* (*ki-i*) appears in nom.-acc. neut. s. (occasional *ki-e* is pl. used for sing.). Undoubtedly it is the IE pronominal stem *ke/o/i-* of Gk. *κείνος*, Lat. *cedo*, *hīs-ce*, *cis*, Goth. *himma* 'huic', etc. The stem *ku-* of acc. s. *kun* (*ku-u-un*) and pl. *kus* (*ku-u-uš*) is difficult. Either we must assume contamination with the *u*-demonstratives such as Av., OP *ava-* 'that',²⁹ or we must suppose that our stem was originally *kwe* (identical with the interrogative-indefinite stem?) and that *w* was lost in most of the forms by some dissimilative or analogical process [114].

*apas*³⁰

252. Hittite *apas* is, after *-as*, the commonest pronoun referring to an antecedent already mentioned. On the ground that many pronouns are based upon indeclinable particles, we may compare the IE preposition *obhi* 'to, towards' (Skt. *abhi*, Lat. *ob*). The stem form *apu-* (acc. s. *apun*, nom.-acc. pl. *apus*) either has the same origin as *ku-* beside *ka/e-* or, if *ku-* is original, it comes from this by analogy [251].

*anis*³¹

253. The rare pronoun *anis* (*an-ni-iš*) 'that' is citable in the nom. s. masc. and in the abl. s. Besides we have a derivative *anisan* (*an-ni-ša-an*) 'previously'. The stem differs from *eni* [250] only in the ablaut of the first vowel. This is the IE stem *eno-*, *ono-* which forms the second

²⁶ Forrer, ZDMG 76. 208; Friedrich, ZA NF 2. 286-9, Vert. 1. 73, 155 f.; Tenner, HAT 22 f.

²⁷ Friedrich, Vert. 2. 141 fn. 1; Hrozný, ZA NF 4. 174.

²⁸ Here and elsewhere Milewski [246 fn. 20] posits original *kei-*, etc. which is possible but quite unnecessary.

²⁹ Brugmann, Grund. 2^a. 2. 341 f.

³⁰ Friedrich, ZA NF 2. 274, Vert. 2. 94 f., 151 f.

³¹ Hrozný, SH 135 fn. 2; Forrer, ZDMG 76. 208; Friedrich, Vert. 1. 152.

element of Gk. *κεῖνος* and whose *o*-grade appears in Lith. *aĩs* 'that', ChSl. *onъ* 'he', etc.

*tamais*³²

254. *tamais* 'other' is etymologically difficult, but two things can be said about it with reasonable certainty. It is somehow connected with the adverb *tan* (*ta-a-an*, *da-a-an*) 'iterum', and its stem vowel alternates between *ai* (lengthened grade) in nom. and acc., both genders, and *e* elsewhere (with various pronominal affixes). One is reminded of IE *ei/e-* 'is'.

kwis, *kwis kwis*, *kwisa*, *kwiski*³³

255. *kwis* (*ku-iš*) is the Hittite interrogative pronoun. It is also used as an indefinite, equivalent to Lat. *aliquis* or *quis* or occasionally *quisquam*; we meet also *kwes* . . . *kwes* 'some . . . others'. The usual word for 'quisquam' (i.e. in negative, conditional, and interrogative sentences) is the compound *kwiski* (*ku-iš-ki*). The compound *kwisa* (*ku-iš-ša*) means 'quisque', as its etymology suggests.

Most frequently *kwis* is a relative, but it is so weakly subordinating that both the relative clause and the main clause regularly require a sentence connective. The Hittite relative is usually postpositive, and the relative clause regularly precedes the main clause. An instance is KBo. 5. 1. 1. 8 : *UNUTE-yakan kwe antan nat sara tai* (*Ū.NU.TE.-MEŠ-ya-kán ku-e an-da-an na-at ša-ra-a da-a-i* 'and accordingly what utensils (are) inside these he takes up'. *kwis* is frequently used as an indefinite relative, but this force may be made explicit by doubling; e.g. KUB 1. 1. 1. 71 f. : *nukan ŠA KUR.KUR.MEŠ URUḪati LÚKUR kwis kwis anta est* (72) *nankan IŠTU KUR.KUR URUḪati arhape weyanun* (*nu-kán ŠA KUR.KUR.MEŠ URUḪa-at-ti LÚKUR ku-iš ku-iš an-da e-eš-ta na-an-kán IŠ.TU KUR.KUR URUḪa-at-ti ar-ḫa-be u-i-ya-nu-un*) 'and so whatever enemy was within the lands of Hatti, him I drove out of the lands of Hatti'; KBo. 5. 4. 1. 39³⁴ : *manas LÚAPIN.LAL-ma nasmas LÚUŠ.BAR LÚNAGAR LÚAŠGAB kwisas ima kwis EN QĀTI* (*[ma-a-na]-aš LÚAPIN.LAL-ma na-aš-ma-aš LÚUŠ.BAR LÚNAGAR LÚAŠGAB ku-i-ša-aš im-ma ku-iš EN QA.TI*) 'if he (is) a farmer or he (is) a weaver, carpenter, leather worker, in fact whatever artisan he (is)'.

³² Friedrich, Vert. 1. 87.

³³ Sommer, BoSt. 7. 3 fn. 1, 10. 16 f., AU 125, 133; Friedrich, Vert. 1. 87, 2. 141; Tenner, KLf 1. 389; Götze, Madd. 138; Sturtevant, Lang. Mon. 7. 141-9.

³⁴ Cf. Friedrich, Vert. 1. 58.

256. Needless to say *kwis* is IE and IH *kwis*. The stem *kwe-* appears in the gen., dat., and abl. (e.g. gen. *ku-e-el*), and the IH stem *kwo* in several adverbs, as *kwapi* (*ku-wa-pi*) 'where, when', *kwat* (*ku-wa-at*) 'whither, for what purpose', *kwata(n)* (*ku-wa-at-ta*, *ku-wa-at-ta-an*) 'whither'. The relative use of the stem, although found in many of the IE languages, is usually supposed to be of separate origin in each. Several agreements in detail between Hittite and early Italic (postpositive position of the relative, precedence of the relative clause, occurrence of a demonstrative in the relative clause, doubling to denote 'whoever') nevertheless indicate that its use as a general relative began in IH. Its development out of the indefinite *can*, however, still be traced in Hittite;³⁵ the full development of the relative construction must be assigned to primitive IE or even to the historical IE languages.

-*el*, -*ela*³⁶

257. The indeclinable particle *-el* 'ipse', usually extended by the emphatic particle *-a*, may be appended to the nom. of the independent personal pronouns or of *apas* 'is' (e.g. *ú-ki-la*, *zi-ki-la*, *šu-ma-a-ši-la*, *a-pa-a-ši-la*). These forms are occasionally used where an accusative or dative is required by the syntax. As to etymology, one naturally thinks of the IE *l*-demonstratives.³⁷ Whether this guess is correct or not the particle may very well be connected with the genitival *el* of the pronominal declension [261].

2. Gender and Number³⁸

258. Gender and number in the demonstrative pronouns correspond in the main to the usage already described [181, 182] for nouns and adjectives. One important difference, however, demands mention. The nom.-acc. neuter, both singular and plural, is often used to refer to plural antecedents of either gender. In case the pronoun is the subject of its sentence, the verb and also a predicate noun or adjective may stand either in the singular or in the plural. The IE languages preserve

³⁵ Adelaide Hahn will present the proof for this statement in a paper soon to appear in *Lang*.

³⁶ Sommer, *BoSt.* 7. 48 fn. 1; Friedrich, *Vert.* 1. 90; Delaporte, *Gramm.* 41. The last named scholar reports *ukel* without reference and it is solely upon this citation that I base the shorter form of the suffix, and from this alone I infer the vowel *e* rather than *i*.

³⁷ Brugmann, *Grund.* 2^a. 2. 340 f.

³⁸ Hrozný, *SH* 134 fn. 2, 143 fn. 1; Friedrich, *ZDMG* 76. 164; *ZA NF* 2. 290-96; Sturtevant, *Studies in Honor of Hermann Collitz* 16-24.

traces of this idiom (e.g. Lat. *id locorum*, OE *hwæt sindon þa gimmas* 'what then are gems?'), and so we may be certain that neuter pronouns might be so used in IH. Obviously the rudimentary character of noun plurals in Hittite and the ordinarily assumed origin of the neuter plural of nouns must stand in some relation to these facts. The crucial part of the development implied belongs, however, to pre-IH, and cannot yet be studied by the comparative method.

3. Case Forms³⁹

259. In Hittite, as in IE, the declension of the pronouns differs from that of the nouns in two respects; there are several distinct stems in each paradigm, and there are certain endings that do not appear in the noun declension. Much of the variation in stem has already been mentioned in connection with our treatment of the several pronouns. There remain to discuss certain formative elements that are common to several pronouns. The case endings are generally the same as those already treated in connection with the declension of nouns, but a few peculiarities will require mention.

Formative *t*

260. The most important stem suffix is *t*, which appears in the nom.-acc. s. neut. (-*at*, *apat*, *kwit*), gen. s. (*etas*, *tametas*), dat. s. (*eti*, *etani*, *setani*, *ketani*, *keti*, *apetani*, *apeta*, *tametani*, *tameta*, *kwetani*, *kwata*), abl. s. (*etez*, *tametaz*), gen. pl. (*apetas*), dat. pl. (*ketas*, *apetas*, *tametas*, *kwetas*). It is customary to call the final consonant of Skt. *tad*, *cid*, Lat. *istud*, *id*, etc. a case ending, but since most neuter nouns have no ending it would be as natural to consider *tad*, etc. stems, and as a matter of fact they often function as stems in composition in Skt. The strongest reason for regarding *d* in the pronouns as final of a stem is its appearance in the Skt. temporal adverbs *tadā* 'then', *yadā* 'when', etc. whose *d* Brugmann⁴⁰ connects with the *d* of the nom.-acc. s. neut.⁴¹ The Hittite datives *apeta* (*a-pi-e-da*, *a-be-da*) and *tameta* (*da-me-da*, *ta-me-e-da*) are to be directly identified with these [263], thus showing that the formation was IH. When *t* of the Hittite pronominal stems is followed by a case ending it is nearly always written single as original *d* must

³⁹ Milewski, RO 8. 106-9.

⁴⁰ Grund. 2² 2. 732.

⁴¹ Otherwise Edgerton, Festschrift für Wilhelm Geiger 156-160. My reply in JAOS 52. 6 fn. 16 requires modification, since I now consider Skt. *mat* an inherited ablative, which came to be used in composition under the influence of *tad*, etc.

be [66]. For double *t* before an enclitic, see [67]. The double *t* of the adverbs *ku-wa-at-ta* and *ku-wa-at-ta-an* [275] is troublesome.

Formative *l*⁴²

261. The genitival *el* has been compared with the genitive ending *l* of Lydian and Etruscan, but that it is in origin a stem suffix is indicated (despite Sommer) by the dat. *tameli* (*dam-mi-li*, *dam-me-li*). The suffixed particle *el(a)* of the intensive pronouns is probably identical [257]. Both may be connected with the IE *l*-demonstratives, but even more attractive, as far as the genitives are concerned, is the connection with adjectival *l*-suffixes advocated by Hrozný and in less satisfactory terms by Milewski.

Formative *n*⁴³

262. The ending of the gen. pl. seen in *kenzan*, *apenzan*, etc. must be complex. One may plausibly find the particle *san* < IH *som* in them, as in the IE genitives pl. such as *toi-som* > Skt. *teṣām* and *tā-som* > Skt. *tāsām* (Skt. as usual shows the long vowel proper to *o*-stems and *ā*-stems). In all probability the *t* between *n* and *s* is secondary [133], and if so we have left a stem in final *n* (*ken-*, *apen-*, etc.). Milewski⁴⁴ compares with this stem the IE possessives such as Goth. *meins*, Lith. *mānas*, and genitives like Av. *mana*, ChSl. *mene*. Probably such stems as these cannot be assumed for IH, but they and our Hittite stems may perhaps contain the same appended element.

Endings of the Dative Singular

263. The pronominal datives are formed from the stem in *t*, usually with an ending *anī* whose origin I do not know, but sometimes with *i* or *a*, both of which are familiar in the noun declension. The complex *ta* of *apeta*, *tameta*, *kwata* is to be identified with Skt. *dā* in *tadā* 'then', *anyadā* 'at another time', etc. No doubt IH had *dō* < **dōi*; that is, the pronominal suffix *-d* [260] once had a by-form with thematic vowel. Hittite *tameta* is an adverb 'at another time' in Hatt. 4. 24 = KBo. 3. 6. 3. 55 = KUB 1. 8. 4. 11;⁴⁵ *kwata* 'whither' is an adverb; and *apeta*

⁴² Hrozný, SH 100; Friedrich, ZDMG 76. 163; Sommer, BoSt. 10. 12; Milewski, RO 8. 107; Kretschmer, Glotta 21. 90 f.

⁴³ Friedrich, Vert. 2. 151 f. (citation of forms).

⁴⁴ RO 8. 109 fn. 19.

⁴⁵ In KUB 10. 72. 2. 6 the context is insufficient to determine the meaning of the word.

is chiefly confined to the phrases *apetanta* and *apetaser*.⁴⁶ It seems probable then that the separation of these forms from the paradigm had begun in IH times. Final *n* of *apetan* (*a-be-da-an*) and *kwatan* (*ku-wa-at-ta-an*) comes from the adverbs; cf. *katan* beside *kata*, *apan* beside *apa*, etc.

Endings of the Ablative Singular

264. Such ablatives as *kez*, *apez*, *kwez* differ from ablatives of the noun declension only in having stems in *e*. *tametaz* (*ta-me-da-az*, *da-me-da-za*) has the ordinary ablative *az*. In the pronominal declension, however, we have occasionally such orthographies as *e-di-iz-za*, *ki-e-iz-za*, *ki-iz-za*, *a-pi-e-iz-za*. These probably represent *eteza*, *keza*, *apeza*; i.e. the usual ablatives with enclitic *-a* 'and, also, even' [195b and fn. 78]; cf. *kweza* (*ku-e-iz-za*) from *kwisa*. Isolated *apeaz* (*a-pi-a-z* —KBo. 2. 9. 1. 18), if not an error, is due to the analogy of the noun.

Nominative-Accusative Plural Neuter

265. The ending of the nom.-acc. pl. neut. is *e* (e.g. *ki-e*, *ku-e*), which must go with IE *ai* (e.g. Skt. *te*, *ke*, Lat. *haec*, *quae*). Hittite *kwe* must be equated with Skt. *ke* and Lat. *quae*, and Hittite *ke* 'haec' is probably the same word as Gk. *καί* 'and' [90]. From *-as* 'is' we have neut. pl. *-a* as well as *-e* [246].

Paradigms

266. *-as* 'is'.

Singular		
nom.	<i>-as</i>	(<i>ta-aš</i> , <i>na-aš</i> , <i>tu-uq-qa-aš</i> , <i>ma-a-na-aš</i>)
acc.	<i>-an</i>	(<i>ta-an</i> , <i>na-an</i> , <i>nam-ma-an</i> , <i>am-mu-uk-ma-an</i>)
neut.	<i>-at</i>	(<i>ta-at</i> , <i>na-at</i> , <i>am-mu-uq-qa-at</i> , <i>ḥa-an-te-iz-zi-uš-ma-at</i>)
Plural		
nom.	<i>-as</i>	(<i>ta-aš</i> , <i>na-aš</i>)
acc.	<i>-as</i>	(<i>ta-aš</i> , <i>na-aš</i> , <i>zi-qa-aš</i>)
	<i>-us</i>	(<i>tu-uš</i> , <i>nu-uš</i>)
neut.	<i>-a</i>	(<i>ta-a</i> , <i>ta-a-ma</i>)
	<i>-e</i>	(<i>ne</i> , <i>ne-e</i> , <i>ne-it-ta</i> , <i>ma-a-ni-za</i> , [<i>ku-w</i>] <i>a-at-wa-ni</i>)

⁴⁶ Cf. Hrozný, AOr. 1. 283. I know *apeta* without following *anta* or *ser* only in the archaic text KBo. 3. 41. 2. 18, where the context is destroyed.

267. *etas* 'eius'.

	Singular	
gen.	<i>etas</i> ⁴⁷	
dat.	$\begin{cases} \textit{etani} \\ \textit{eti} \end{cases}$	$\begin{pmatrix} (e-da-ni) \\ (e-di, i-di) \end{pmatrix}$
abl.	<i>etez</i>	$(e-te-iz, e-te-za, e-di-iz)$

Rarer form

	Singular	
abl.	<i>eteza</i>	$(e-di-iz-za)$

268. *sas* 'is'.

	Singular	
nom.	<i>sas</i>	$(ša-aš)$
acc.	<i>san</i>	$(ša-an, ša-na)$
gen.	<i>sel</i>	$(ši-i-e-el)$
dat.	<i>setani</i>	$(ši-e-ta-ni)$
abl.	<i>sez</i>	$(? \textit{ši-i-e-iz}$ —KUB 9.31.1.14, context destroyed)
	Plural	
acc.	<i>sus</i>	$(šu-uš, šu-ša)$
neut.	<i>se</i>	$(še)$

269. *enin* 'eum'.

acc.	<i>enin</i> ⁴⁸	
neut.	<i>eni</i>	$(e-ni, i-ni)$

270. *unin* 'eum'.

	Singular	
acc.	<i>unin</i>	$(u-ni-in)$
neut.	<i>uni</i>	$(u-ni)$
	Plural	
acc.	<i>uniyus</i>	$(u-ni-uš, u-ni-i-uš)$

271. *kas* 'hic'.

	Singular	
nom.	<i>kas</i>	$(ka-a-aš, ka-a-ša)$
acc.	<i>kun</i>	$(ku-u-un)$

⁴⁷ Cited without reference by Forrer, ZDMG 76. 207; Friedrich, Vert. 1. 74; Delaporte, Gramm. 39. I have not met the form.

⁴⁸ Cited by Forrer, ZDMG 76. 208 without reference.

neut.	<i>ki</i>	(<i>ki-i</i>)
gen.	<i>kel</i>	(<i>ki-e-el</i> , <i>ki-el</i>)
dat.	<i>ketani</i>	(<i>ki-e-da-ni</i> , <i>ki-i-da-ni</i>)
abl.	<i>kez</i>	(<i>ki-e-iz</i> , <i>ki-e-za</i>)
inst.	<i>ket</i>	(<i>ki-e-it</i> —KBo. 6. 2. 1. 49; KUB 1. 16. 3. 14)

Plural

nom.-acc.	<i>kus</i>	(<i>ku-u-uš</i>)
neut.	<i>ke</i>	(<i>ki-e</i> , <i>ki-i</i>)
gen.	<i>kenzan</i>	(<i>ki-in-za-an</i>)
dat.	<i>ketas</i>	(<i>ki-e-da-aš</i> , <i>ki-e-ta-aš</i>)

Rarer forms

Singular

dat.	<i>ketaniya</i>	(<i>ki-e-da-ni-ya</i>)
	<i>keti</i>	(<i>ki-e-ti</i> —KBo. 4. 2. 1. 26)
abl.	<i>keza</i>	(<i>ki-e-iz-za</i> , <i>ki-iz-za</i>)
	<i>kezi-</i>	(? <i>ki-e-iz-zi-ma-kán</i> —KUB 14. 17. 2. 12)

Plural

nom.	<i>keyus</i>	(<i>ki-e-uš</i> —KUB 14. 8. 2. 18)
	<i>keyas</i>	(<i>ki-e-aš</i> —KBo. 5. 3. 4. 16)
gen.	<i>kel</i>	(<i>ki-e-el</i> —KUB 14. 1. 2. 30. 31)
abl.	<i>keza</i>	(<i>ki-iz-za</i> —KBo. 2. 9. 1. 19)

272. *apas* 'is'.

Singular

nom.	<i>apas</i>	(<i>a-pa-a-aš</i> , <i>a-pa-aš</i> , <i>a-pa-a-ša</i>)
acc.	<i>apun</i>	(<i>a-pu-u-un</i> , <i>a-pu-un</i> , <i>a-pu-na</i>)
neut.	<i>apat</i>	(<i>a-pa-a-at</i> , <i>a-pát</i> , <i>a-pa-at</i>)
gen.	<i>apel</i>	(<i>a-pí-el</i> , <i>a-pí-e-el</i>)
dat.	<i>apetani</i>	(<i>a-pí-e-da-ni</i> , <i>a-pí-da-ni</i> , <i>a-be-da-ni</i>)
abl.	<i>apez</i>	(<i>a-pí-e-iz</i> , <i>a-pí-iz</i>)
inst.	<i>apet</i>	(<i>a-pí-it</i> —KUB 14. 13. 1. 49)

Plural

nom.-acc.	<i>apus</i>	(<i>a-pu-u-uš</i> , <i>a-pu-uš</i> , <i>a-pu-ú-uš</i>)
neut.	<i>ape</i>	(<i>a-pí-e</i>)
gen.	<i>apenzan</i>	(<i>a-pí-en-za-an</i>)
dat.	<i>apetas</i>	(<i>a-pí-e-da-aš</i> , <i>a-pí-da-aš</i>)

Rarer forms

Singular

neut.	<i>apata</i>	(<i>a-pa-a-at-ta-ya</i> , <i>a-pád-da-ya</i> , <i>a-pád-da</i>)
dat.	<i>apeta</i>	(<i>a-pí-e-da</i> , <i>a-be-da</i>)
	<i>apetan</i>	(<i>a-be-da-an</i> —KUB 5. 6. 4. 20; 5. 10. 23)

abl.	$\begin{cases} \text{apeza} & (\text{a-pi-e-iz-za}) \\ \text{apeaz} & (\text{a-pi-az}) \end{cases}$
	Plural
gen.	$\begin{cases} \text{apel} & (\text{a-pi-el—KBo. 5. 9. 2. 40}) \\ \text{apetas} & (\text{a-pi-e-da-aš}) \end{cases}$

273. *anis* 'ille'.

nom.	<i>anis</i>	(<i>an-ni-iš</i>)
abl.	<i>anaz</i>	(<i>an-na-az, an-na-za</i>)

274. *tamais* 'other'.

Singular

nom.	<i>tamais</i>	(<i>ta-ma-iš, ta-ma-a-iš, da-ma-a-iš</i>)
acc.	<i>tamain</i>	(<i>ta-ma-a-in, ta-ma-in, da-ma-a-in, dam-ma-in</i>)
neut.	<i>tamai</i>	(<i>ta-ma-i, ta-ma-a-i</i>)
gen.	<i>tamel</i>	(<i>da-me-el, ta-me-e-el</i>)
dat.	<i>tametani</i>	(<i>da-me-e-da-ni, ta-me-e-da-ni, da-me-e-ta-ni</i>)
abl.	<i>tametaz</i>	(<i>ta-me-da-az, ta-me-e-ta-az, da-me-da-za</i>)

Plural

nom.	<i>tamaes</i>	(<i>ta-ma-e-eš, ta-ma-iš</i>)
acc.	<i>tamaus</i>	(<i>da-a-ma-uš</i>)
neut.	<i>tamai</i>	(<i>ta-ma-a-i, da-ma-a-i</i>)
gen.	<i>tamenzan</i>	(<i>dam-me-en-za-an</i>)
dat.	<i>tametas</i>	(<i>ta-me-e-da-aš</i>)

Rarer forms

Singular

nom.	<i>tamas</i>	(<i>ta-ma-aš—KBo. 6. 26. 2. 16</i>)
gen.	<i>tametas</i> ⁴⁹	
dat.	$\begin{cases} \text{tameli} & (\text{dam-mi-li, dam-me-li}) \\ \text{tameta} & (\text{adv. da-me-da, ta-me-e-da}) \end{cases}$	

Plural

nom.	<i>tamaus</i>	(<i>da-ma-a-uš, da-ma-uš</i>)
------	---------------	---------------------------------

275. *kwis* 'qui, quis'.

Singular

nom.	<i>kwis</i>	(<i>ku-iš</i>)
acc.	<i>kwin</i>	(<i>ku-in</i>)
neut.	<i>kwit</i>	(<i>ku-it, ku-it-ta</i>)
gen.	<i>kwel</i>	(<i>ku-e-el</i>)

⁴⁹ Cited without reference by Delaporte, Gramm. 47.

dat.	<i>kwetani</i>	(<i>ku-e-da-ni, ku-e-da-a-ni, ku-i-e-da-ni, ku-i-da-ni</i>)
abl.	<i>kwez</i>	(<i>ku-e-iz</i>)
Plural		
nom.	<i>kwes</i>	(<i>ku-i-e-eš, ku-e-eš, ku-i-e-eš₄, ku-i-eš</i>)
acc.	<i>kweyus</i>	(<i>ku-i-uš, ku-e-uš</i>)
neut.	<i>kwe</i>	(<i>ku-e, ku-i-e</i>)
dat.	<i>kwetas</i>	(<i>ku-e-da-aš, ku-e-ta-aš</i>)

Rarer forms

Singular

nom.	<i>kwes</i>	(<i>ku-i-e-ša-aš</i>)
neut.	<i>kwat</i>	(adv. <i>ku-wa-at</i>)
dat.	<i>kwata</i>	(adv. <i>ku-wa-at-ta</i>)
	<i>kwatan</i>	(adv. <i>ku-wa-at-ta-an, ku-wa-ta-an</i>)

Plural

acc.	<i>kwes</i>	(<i>ku-i-e-eš</i>)
------	-------------	----------------------

276. *kwiski* 'quisquam'.

Singular

nom.	<i>kwiski</i>	(<i>ku-iš-ki</i>)
acc.	<i>kwinki</i>	(<i>ku-in-ki</i>)
neut.	<i>kwitki</i>	(<i>ku-it-ki</i>)
gen.	<i>kwelka</i>	(<i>ku-e-el-qa, ku-el-qa, ku-el-ga, ku-e-il-ka, ku-el-ka, ku-e-el-ka</i>)
dat.	<i>kwetaniki</i>	(<i>ku-e-da-ni-ik-ki, ku-e-da-ni-ki</i>)
abl.	<i>kwezka</i>	(<i>ku-e-iz-ka, ku-e-iz-qa</i>)

Plural

nom.	<i>kweska</i>	(<i>ku-i-e-eš-qa</i>)
neut.	<i>kweka</i>	(<i>ku-e-qa</i>)
	<i>kweki</i>	(<i>ku-e-ik-ki, ku-e-ki</i>)

Rarer forms

Singular

nom.	<i>kveski</i>	(<i>ku-e-iš-ki</i> —KUB 14. 14. 2. 18)
	<i>kwiska</i>	(<i>ku-iš-ka</i>)
	<i>kwisku</i>	(<i>ku-iš-ku</i> —KBo. 6. 3. 3. 12)
gen.	<i>kwelki</i>	(<i>ku-el-ki</i> —KUB 13. 23. 3)
dat.	<i>kwetanika</i>	(<i>ku-e-da-ni-ik-ka</i> —KBo. 3. 41. 2. 4)

277. *kwisa* 'quisque'.

Singular		
nom.	<i>kwisa</i>	(<i>ku-iš-ša</i> , <i>ku-i-ša</i>)
acc.	<i>kwina</i>	(<i>ku-in-na</i>)
neut.	<i>kwita</i>	(<i>ku-i-da</i>)
gen.	<i>kwela</i>	(<i>ku-e-el-la</i>)
dat.	<i>kwetaniya</i>	(<i>ku-e-da-ni-ya</i>)
abl.	<i>kweza</i>	(<i>ku-e-iz-za</i> , <i>ku-i-e-iz-za</i>)
Plural		
nom.	<i>kvesa</i>	(<i>ku-i-e-ša</i>)
acc.	<i>kweyusa</i>	(<i>ku-i-uš-ša</i>)

CHAPTER VI

VERBS

I. PREFIXES

278. Like the ancient IE languages Hittite avoids forming verb stems by composition in the fashion of nouns. The nearest approach to verbal composition is the use of more or less completely stereotyped phrases consisting of adverb and verb. By the customary terminology of IE grammar I call the adverbial elements in such phrases prefixes. Some prefixes so far retain their independence that they are written as separate words and may be separated from the verb by one or more words. Such prefixes may be called separable prefixes.

The principal separable prefixes are: *apa* (EGIR-*pa*, *a-a-pa*), *apan* (EGIR-*pa-an*) 'back, again', *anta* (*an-da*), *antan* (*an-da-an*) 'within', *arha* (*ar-ḥa*) 'away', *awan* (*a-wa-an*) 'apart, off', *hanti* (*ḥa-an-ti*) 'in front',¹ *kata* (*kat-ta*), *katan* (*kat-ta-an*, GAM-*an*) 'together, down', *peran* (*pí-ra-an*) 'before, forth', *pra* (*pa-ra-a*) 'forth', *sara* or *sra* (*ša-ra-a*) 'up', *ser* (*še-ir*) 'above', *tuwan* or *tuwan* (*du-wa-an*) 'afar'. All of these words might as easily be called adverbs, and several of them occur in sentences where they are more closely connected with other words than with the verb. Their general similarity to IE verbal prefixes is, however, obvious, and several are cognate with such prefixes (*apa* = Gk. ἀπό; *anta* : IE *en*, cf. OLat. *endo*; *awan* : Skt. *awa*; *hanti* = Gk. ἄντι; *kata* = Gk. κατά; *pra* = IE *prō*). The usual position of these words is immediately before the verb; e.g. Hat. 1. 66: *numuza ŠEŠ.YA Muwatalis pra wesket* (*nu-mu-za ŠEŠ.YA 1NIR.GÁL-iš pa-ra-a u-i-iš-ki-it*) 'and my brother Muwatalis used to send me on expeditions'. As in our early IE documents other words, especially enclitics, may intervene between the prefix and the verb; e.g. Hat. 1. 72: *nankan . . . arhape weyanun* (*na-an-kán . . . ar-ḥa-be u-i-ya-nu-un*) 'and I drove him clean out'; Hat. 1. 52 f.: *kururimu peran kata nata kwapiki tarnas* (A.NA 16KUR-mu (53) *pí-ra-an kat-ta Ū.UL ku-wa-pí-ik-ki tar-na-aš*) 'she did not at any time surrender me to my enemy'. As in some of the IE languages two of these prefixes are sometimes combined, as in the last

¹ Götze, NBr. 6 fn. 3; Sommer, AU. 186 f.

sentence cited. Other combinations are *katan apa*, *awan arha*, *katan arha*, *ser arha*, *awan kata*, *peran kata*, *awan sara*, *twan pra*. Note that forms with final *n* generally stand first in such pairs.²

279. The prefixes listed below combine with a verb to form a single word. In some cases the two are effectually fused by contraction of final with initial vowel (*pai* 'gives' < IH *bhe-ēi*) or by use of zero grade of the root (*ha-tki* 'shuts'). The two elements are nearly always combined in writing, although a few phrases such as *pe harzi* (*pi-e har-zi*) 'carries' separate the prefix.

280. *apa*, the same word as the separable prefix *apa*, must be recognized in *apai* (*ap-pa-a-i*, *a-ap-pa-a-i*) 'is finished'. The verb is from the perfect of IH *ei*- 'go'; cf. *huwai* 'runs, flees, marches', *pai* 'gives', *prai* 'sends forth', *zai* 'crosses'.

281. *em-* < IH *en-* 'in' must apparently be assumed in *emeya-* (*im-mi-ya-az-zi*, *im-mi-ya-zi*) 'mix' [305]. Hrozný, SH 183 f., suggests that *antakan empawar* (*an-da-kán im-pa-u-wa-ar*) 'sorrow, sadness' (only in a vocabulary, KBo. 1. 42. 3. 53 f.) may contain original **en*. Perhaps *pawar* is from *paizi* 'goes', and the original meaning of the phrase was 'penetration'.

282. *ha-* < IH *ho-* : IE *o-* occurs in several verbs as well as in nouns [149]: *hanai* (*ha-an-na-a-i*) 'litigates, decides a lawsuit' beside *nai* 'leads, turns, drives'; *hatki* (*ha-at-ki*) 'shuts' : Lat. *tego*; *huwai* (*hu-u-wa-a-i*, *hu-u-wa-i*, *hu-wa-a-i*) 'flees, runs, marches' < IH *ho-we-ēi* [80]; *pehutezi* (*pi-e-hu-te-iz-zi*) 'brings' < IH *bhe-ho-u-dhēti*. *hantaezi* (*ha-an-da-a-iz-zi*) 'establishes' is a denominative from *hantas* 'firm'. Possibly the equivalent *hantezi* (*ha-an-te-iz-zi*) is a primary verb (< IH *ho-nde-ti*), but probably it is metaplastic. *harpzi* (*har-ap-zi*) 'places' is cognate with Skt. *arpayati* 'throws, places', and if both are etymologically connected with IH *er-* 'move, come to a stand', *harpzi* must contain the prefix *ha*.

283. *pe-* (*pi-e*) 'secum' < IH *bhe-* [76, 128] occurs in *pe harzi* (*pi-e har-zi*) 'fert', *petai* (*pi-e-da-a-i*) 'takes with him', *penai* (*pi-en-na-i*) 'drives, leads with him', *paizi* (*pa-iz-zi*) 'goes', *pai* (*pa-a-i*) 'gives', *pehutezi* (*pi-e-hu-te-iz-zi*) 'brings'.³ The prefix does not occur as such in IE, but the related IH *bhi* appears in Goth. *bi-*, OE *bi-*, *be-*, Skt. *abhi-*, Gk. *ἀμφι-*, Lat. *ambi-*.

284. *pra-*, identical with the separable prefix *pra*, appears in *prai*

² On *awan* and *twan* in these phrases, see Götze, Madd. 135 f.

³ Friedrich, ZA NF 2. 52 f., Vert. 2. 146; Götze, Hatt. 83 f.; Sturtevant, Lang. 7. 1-13.

(*pa-ra-a-i*) 'sends forth' (cf. *apai*, *zai*) and in *prases-* (pret. 3 pl. *pa-ra-še-eš-še-ir*, *pa-ra-a-še-eš-ši-ir*) 'mutiny'.

285. *sa-* < IH *sm-* 'together' appears in several Hittite nouns [149] and also in *sala-* (midd. imper. *šal-la-at-ta-ru*), *saliya-* (*ša-li-ya-it-ta*) 'melt', *samen-* (*ša-me-en-zi*) 'renounce' beside *mima-* < IH *mimnā-* 'refuse', *sanai* (*ša-an-na-a-i*) 'conceals' beside *nai* 'leads, turns, drives', *salekzi* (*ša-li-ik-zi*) of unknown meaning, *saleka* (midd. *ša-li-i-ga*) 'lies with', *sakunesk-* (2 s. *ša-ku-ni-eš-ki-ši*) 'gush'.

286. *u-*, *we-*, *wa-* 'hither' is found in *upai* (*up-pa-a-i*) 'sends hither', *utai* (*ú-da-i*, *ú-da-a-i*) 'brings', *unai* (*u-na-i*) 'leads, drives hither', *wetezi* (*ú-e-te-iz-zi*), *wetahi* (*ú-e-da-aḥ-ḥi*) 'build',⁴ *watezi* (*ú-wa-te-iz-zi*) 'brings',⁵ *wakari* (*wa-aq-qa-a-ri*) 'is lacking', *wakariya-* (*wa-aq-qa-ri-ya-zi*) 'rebel', *waki* (*wa-a-ki*) 'bites', *huwai* (*ḥu-u-wa-a-i*) 'runs, marches, flees' [282]. These prefixes come from IH *au-*, *we-*, *wo-*; cf. Lat. *aufero* 'carry away', *vāscor* 'eat of', Arc. *φο-φλέκωσι* beside Att. *ὀφείλω* 'owe' (a penalty). We probably have zero grade IH *u* in *pehutezi* (*pi-e-ḥu-te-iz-zi*) 'leads, brings' < IH *bhe-ho-u-dhēti*; *ho* + *au* would probably yield IH *hōu* > Hittite *hau*.

287. *ze-* 'through' occurs in *zenai* (*zi-in-na-i*, *zi-en-na-i*) 'brings to an end, destroys, is ready' originally 'puts through' and in *zai* (*za-a-i*) 'passes, transgresses'. The latter verb is conjugated like *pai* (*pa-a-i*) 'gives', which is a compound of IH *bhe* + *ēi*.

II. REDUPLICATION*

288. Reduplication is not uncommon in the Hittite verb, but it does not form an essential part of the morphological system. The only IE type of reduplication that is well represented in Hittite is the "intensive" reduplication including two consonants and intervening vowel. Presumably the intensive force is present in the Hittite verbs of this form, but it can scarcely be demonstrated in the present state of our knowledge. Examples are *hashas-* (part. *ḥa-aš-ḥa-aš-ša-an*, verbal noun *ḥa-aš-ḥa-aš-šu-ar*) beside *has-* (3 pl. *ḥa-aš-ša-an-zi*) 'open'; *hulkuliya-* (part. *ḥu-ul-ḥu-li-ya-an-te-eš*, verbal noun *ḥu-ul-ḥu-li-ya-wa-ar*) beside *hulai* (*ḥu-ul-la-a-i*) 'smites'; *katkatenu-* (*kat-kat-ti-nu-zi*, pret. *kat-kat-te-nu-ut*) 'pour over, bathe'; *kwaskwas-* (*ku-aš-ku-aš-zi*) 'pound, crush',

⁴ Pret. *ú-e-te-it* 'brought' may be the same word as *ú-e-te-it* 'built'; but pres. *ú-i-da-iz-zi* 'brings' and its pret. *ú-i-da-a-it* appear to be denominative.

⁵ Friedrich, ZA NF 2. 52 f., Vert. 1. 42 fn. 3, 180, 2. 146; Sturtevant, Lang. 7. 1-13.

⁶ Marstrand, Car. 81 f.

cf. *kwen-* 'smite'; *lahlahiya-* (1 pl. *la-aḥ-la-aḥ-ḥi-ya-u-e-ni*, iterat. 1 pl. *la-aḥ-la-aḥ-ḥi-eš-ga-u-e-ni*) 'make campaigns', *lahlahinu-* (pret. 3 pl. *la-aḥ-la-aḥ-ḥi-nu-e-ir*⁷) 'cause to fight' beside *lahiya-* (1 s. *la-aḥ-ḥi-ya-mi*) 'make a campaign'; *masmas-* (*ma-aš-ma-aš-zi*—KUB 7. 1. 1. 26⁸) of unknown meaning; *tastasiya-* (*ta-aš-ta-ši-ya-iz-zi*) 'whisper'(?). Unmistakably intensive in character is the reduplication in *partipartesk-* (*pár-ti-pár-ti-iš-ki-iz-zi*—KUB 17. 3. 3. 8), *lahilaheskinu-* (*la-aḥ-ḥi-la-aḥ-ḥi-eš-ki-nu-zi*) 'drive at a gallop', and *ilaliya-* (*i-la-li-ya-zi*, 1 s. *i-la-a-li-ya-mi*) 'desire' beside *ilesar* (dat. *i-li-iš-ni*) and *ilatar* (*i-la-tar*, dat. *i-la-ni*) 'wish'(?).

289. Reduplicating syllables consisting of a single consonant and a single vowel are common, but there is no observable tendency toward generalizing any one vowel. In a majority of the instances the vowel is the same as the radical vowel, but this is not always so. The iterative-durative verbs in *ske/a* show a certain affinity for reduplication—no doubt on account of its generally intensive character—; but the vast majority of *ske/a*-verbs are without reduplication, and on the other hand, many other verbal types are occasionally reduplicated. While several *hi*-conjugation verbs (i.e. original perfects) have reduplication, there is no indication that this is more than an accident. As far as our limited material goes reduplication belongs alike to all parts of the verbal system. In several instances we have reduplicated and unreduplicated forms from the same root; but this results in a double system of forms, not in the use of reduplication to reinforce other marks of distinction. The most important material is this: *haharsk-* (pret. *ḥa-aḥ-ḥar-aš-ki-it*) 'corrupt'; *hashas* (part. *ḥa-aš-ḥa-aš-ša-an*) 'open'(?); *nanai-* (*na-an-na-i*), *naneya-* (3 pl. *na-an-ni-ya-an-zi*) beside *nai-* 'lead'; *nanah-* (pret. 1 s. *na-an-na-aḥ-ḥu-un*) beside *nah-* 'fear'; *papars-* (*pa-ap-pár-aš-zi*, iterat. 3 pl. *pa-ap-pár-aš-kán-zi*) 'sprinkle' : Czech. *pršeti* 'sprinkle, drizzle, rain'; *tatar-* (*ta-at-ta-ri*—? KUB 20. 1. 2. 10, 3 pl. *ta-at-ta-ra-a-an-zi*) 'wipe'(?): Gk. *τερω*, Lat. *tero* (?); *tatalusk-* (verbal *ta-at-ta-lu-uš-ki-u-wa-ar*) 'set free'(?), cf. *tala* 'leave, let go'; *tatrak-* (pret. [*ta*]-*at-ra-aḥ-ḥa-aš*, midd. *ta-at-ra-aḥ-ta*) 'cause to conspire, conspire'(?); *mema-* (*me-ma-a-i*) 'say' : Gk. *μῆμνμαι*; *sesha-* (*še-eš-ḥa-a-i*) 'assign, order' beside *sha-* (*iš-ḥa-a-i*) 'bind'; *wewaki* (*ú-e-wa-ak-ki*) beside *wekzi*, *wakezi* 'asks, demands'; *tetases-* (pret.? *te-e-da-ši-iš-ta*) of unknown meaning; *kiki-* or *keke-* (imper. *ki-ik-k[i-it]-ta-ru*—KBo. 3. 1. 2. 36) 'be placed' beside *keta* 'lies' [301]; *kikis-* or *kekes-* (*ki-ik-ki-iš-ta-ri*) beside *kes-*

⁷ KUB 9. 34. 3. 31: *la-aḥ-la-aḥ-ḥi-nu-e-nu-e-ir*!

⁸ Cf. Götze, Madd. 72.

(*ki-ša-ri*, *ki-i-ša*) 'become' [316]; *lilivah-* (inf. *li-li-wa-aḥ-ḥu-u-an-zi*, iterat. pret. *li-li-wa-aḥ-ḥi-eš-ki-it*) 'hasten'; *mima-* (*mi-im-ma-i*) 'refuse': Gk. *μῖμω*; *pipa-* (1 s. *pi-ip-pa-aḥ-ḥu-un*, 3 s. *pi-ip-pa-i*);⁹ *tita-* (1 s. *ti-it-ta-mi*—KUB 1. 1b. 2, pret. 1 s. *ti-it-ta-nu-un*), *titanu-* (*ti-it-ta-nu-zi*) 'cause to stand', *titiya-* (part. *ti-it-ti-an-za*, *ti-it-ti-ya-an-te-eš*) 'assign': Skt. *tiṣṭhati*, Lat. *sisto* [143a]; *wiwai* (*ú-i-wa-i*) beside *wiyezi* 'squeal like a pig'; *kukurs-* (part. *ku-kur-ša-an-te-eš*, iterat. *ku-uk-kur-iš-ki-iz-zi*) 'cut off' beside *kwer-/kur-* 'cut off'; *mumeya-* (midd. *mu-um-mi-i-e-it-ta*—KUB 13. 2. 16) 'be broken off, fall',¹⁰ cf. *emeya-* (*im-mi-ya-az-zi*) 'mix'; *tutusk-* (2 s. *du-ud-du-uš-ki-ši*) 'control, manage'.

290. Reduplication of a syllable beginning with a vowel occurs in the common word *asas-/ases-* (*a-ša-a-ši*, 3 pl. *a-še-ša-an-zi*) 'set'. The identity of this with the type of Gk. *ἀγαγεῖν* is apparent.

III. THE VERB SYSTEM IN GENERAL

291. The Hittite verb has two moods (indicative and imperative) and two tenses (present-future and preterit). There are two infinitives, one nearly always active and the other usually intransitive, a participle that is regularly intransitive, a supine that combines with *tai-* 'place' to mean 'begin and continue the action of the verb', and verbal nouns of two types. There are two secondary conjugations, one causative and the other iterative-durative. Finally there is a compound perfect and its preterit consisting of the neuter of the participle with the two tenses of the auxiliary verb *har(k)-* 'have'. There is a medio-passive voice which may differ from the active in being reflexive or passive or in implying some particular interest on the part of the subject, but which often appears to be equivalent to the active.

292. This extremely simple semantic system is complicated by many differences in form which, as far as our present knowledge goes, do not imply differences in meaning. There are two conjugations, one historically corresponding in the main to the IE present and aorist systems, and the other to the IE perfect system. The former is called the *mi*-conjugation and the latter the *hi*-conjugation, from their respective endings in the pres. 1 s. The *mi*-conjugation falls into a number of classes according to the formation of the stem and the *hi*-conjugation consists of three classes according to the stem final. Variation between two or more of these classes is the rule rather than the exception. The third class of the *hi*-conjugation is defective and is always supplemented

⁹ Götze, KLf 1. 222 f. Cf. *pai* 'gives'.

¹⁰ Götze, NBr. 63.

by forms belonging more or less clearly to other classes. Forms of other classes also are frequently combined to complete a conjugation. Sometimes different stems from a single root differ in meaning (e.g. *ari* 'arrives', *arai* 'arises, rebels', occasionally 'gives an oracle', *ariyezi* 'inquires by divination, gives an oracle'), but more frequently they seem to be equivalent (e.g. *warsi*, *warsezi*, *warsiyezi* 'mulcet'; *wasezi*, *wasiyezi*, *wesiyezi* 'clothes, puts on', *westen* 'clothe ye'; *wekzi*, *wakezi*, *wewaki* 'asks'). The medio-passive has a bewildering diversity of form aside from variations of stem. Thus in the 3 s. there are five endings (zero, *ri*, *ti*, *ta*, *tari*) and many verbs are citable with two or three of these (e.g. *halziya*, *halziyari*, *halziyatari* 'he calls').

293. In some respects the Hittite verb is more archaic than the IE verb. The relative frequency of non-thematic root verbs [298] is undoubtedly a feature of IH which was progressively eliminated in IE. The lack of discrimination between present and aorist is also in the main inherited, although the peculiar affinity of forms with suffix *s* for the preterit of the *hi*-conjugation is strongly reminiscent of IE. On the other hand the complete(?) identity of meaning between the original present and perfect systems must be a Hittite innovation. Even clearer innovations are the appending of suffixes *nu* and *ske/a* to stems already characterized (e.g. *tekusanu*- 'show', *tariyanu*- 'call upon', *arnuske/a*- 'bring'), and the constant formation of infinitives and participles from a fully characterized stem rather than from the root.¹¹ In many instances of divergence between the Hittite and the IE verb it is impossible to determine with certainty which is the innovator.

IV. STEMS OF THE *mi*-CONJUGATION

294. The *mi*-conjugation corresponds in general to the IE present and aorist systems. It consists of several classes differing from one another in the formation of the stem [298-338].

295. There is also, as in IE, a distinction between thematic and non-thematic conjugation which cuts across the division into classes. The primary verbs [298-305] were from the start partly thematic and partly non-thematic. Probably the same thing is true of the verbs with suffix *iya*, but here there is no certain evidence of the non-thematic

¹¹ Perhaps this statement is too sweeping as far as the participle is concerned, since participles in *nt* are formed in IE from present and aorist stems; but the Hittite participle is functionally identical with the IE participle in *to*, and besides it is formed even from *hi*-conjugation verbs. Participles in *to* and infinitives from characterized stems are well known in IE, but they are of secondary development.

type in Hittite [306-309]. Both Hittite and IE offer evidence of suffix *IH se/o* beside *s* [317]. Verbs with suffix *ske/a* [333-338] are always thematic, and so are denominatives in *a(e) < IH āye/o* [310-314].

296. The original distribution of the two stem-vowels has been considerably disturbed in Hittite.¹² Original *e* persists without rivalry in the third singular, although the *ya*-verbs frequently show such spellings as *ú-e-mi-ya-zi* beside *ú-e-mi-iz-zi*, *ú-e-mi-e-iz-zi*, *ú-e-mi-e-zi*, etc. [43]. *watu* (*ú-wa-du*—HT 1. 1. 30) 'let him come' is a trace of the original non-thematic conjugation of this word (cf. Doric *ἐβάρ*). In the third plural present and imperative we have only *anzi* and *antu*, except for the retention of *enzi* in the otherwise metaplastic verbs *ya*- 'make' and *wa*- 'come' [297] and in analogical *tienzi* 'they come' [387]; cf. also *yentu* (*i-en-du*—KBo. 6. 34. 2. 49 bis) 'let them make'.¹³ In the third plural preterit the intrusion of the ending *er* from the *hi*-conjugation [412] imported the vowel *e*, which remains unchanged.

For the rest we must assume different tendencies in different groups of thematic verbs. Those with suffix *ske/a* show a fairly consistent drift toward *e*. They retain *a* consistently only in the third plural present and imperative and they show *a* for *e* only in occasional instances of the second plural. They have *e* regularly in the first singular (e.g. *da-aš-ki-mi*, *pi-eš-ki-mi*, *ak-ku-uš-ki-nu-un*, *a-ri-iš-ki-e-nu-un*) and occasionally in the first plural (e.g. *hu-u-ít-ti-ya-an-ni-eš-ki-u-wa-ni*, *tar-aš-ki-u-en*). At the opposite extreme seem to stand the *ya*-verbs, which normally exhibit the sign *ya* before all endings except that of the preterit third plural. Variant spellings guarantee the vowel *e* in the third singular [43], and perhaps we should read it elsewhere; e.g. *wemiyesi* (? *ú-e-mi-ya-ši*), *shiyeteni* (? *iš-ḫi-ya-at-te-e-ni*). There is no doubt, however, that *a* frequently got into the second person in other verbs, as *hatrasi* (*ḫa-at-ra-a-ši*) 'you write' beside *hatraezi* (*ḫa-at-ra-a-iz-zi*) 'he writes' [310], *wasasi* (*wa-aš-ša-a-ši*) 'you put on, clothe' beside 3 s. *wasezi* (*wa-aš-še-iz-zi*).

297. In Hittite, as in all the IE languages, there was a tendency for the thematic type of conjugation to spread at the expense of the others. Certain instances of its encroachment are the following; see also [314, 317, 387].

hulazi (*hu-u-ul-la-az-zi*—KBo. 6. 26. 2. 11)¹⁴ 'strikes', pret. 1 s.

¹² For the alternation of *e* and *a* in the middle, see [375].

¹³ I do not know the pronunciation or meaning of *ḫa-ti-en-zi* (KBo. 6. 26. 4. 14) in §198 of the Code.

¹⁴ The vowel *a* instead of expected *e* is a reminiscence of the original conjugation according to the *a*-class of the *hi*-conjugation. Cf. *twarnazi*, fn. 16.

hulanun (*hu-ul-la-nu-un*), 3 s. *hulet* (*hu-ul-li-it*), beside pres. 3 s. *hulai* (*hu-ul-la-a-i*—KBo. 6. 29. 3. 42), pret. 1 pl. *hulumen* (*hu-ul-lu-mi-en*—KUB 23. 21. 2. 29).

kapuwezi (*kap-pu-u-iz-zi*, *kap-pu-u-e-iz-zi*) 'counts', 2 s. *kapuwesi* (*kap-pu-u-e-ši*), pret. *kapuwet* (*kap-pu-u-e-it*), imper. 2 s. *kapuwe* (*kap-pu-u-i*), 3 s. *kapuwetu* (*kap-pu-u-id-du*) beside pret. *kapuwaet* (*kap-pu-u-wa-it*) imper. 2 s. *kapuwae* (*kap-pu-u-wa-i*).¹⁵

sarezi (*šar-ri-iz-zi*, *šar-ri-e-iz-zi*) 'breaks, divides', pret. *saret* (*šar-ri-it*), 3 pl. *sarer* (*šar-ri-i-e-ir*, *šar-ri-e-ir*) beside *sarai* (*šar-ra-i*), 2 s. *sarati* (*šar-ra-at-ti*), pret. 2 s. *sarata* (*šar-ra-at-ta*), infin. *sarumanzi* (*šar-ru-ma-an-zi*).

twarnezi (*du-wa-ar-ni-iz-zi*) 'breaks', pret. *twarnet* (*du-wa-ar-ni-it*), 3 pl. *twarnar* (*tu-wa-ar-ni-ir*) beside imper. 3 s. *twarnau* (*du-wa-ar-na-a-ú*—KBo. 6. 34. 3. 41).¹⁶

wa/e 'come' < IH *gwā* : Skt. *agām*, Gk. *ἄβην* shows thematic conjugation in most of its forms; e.g. 1 s. *wami* (*ú-wa-mi*), 3 s. *wezi* (*ú-iz-zi*), 3 pl. *wanzi* (*ú-wa-an-zi*), pret. 1 s. *wanun* (*ú-wa-nu-un*), 3 s. *wet* (*ú-it*), 1 pl. *wawen* (*ú-wa-u-en*). Probably 3 pl. *ú-en-zi* (KBo. 6. 2. 4. 13) represents IH *gw-énti*; if so this one form is more primitive than anything in the Skt. and Gk. paradigms, since they show an extension of the full grade vowel to all plural forms.

ya/e 'make, do' < IH *yē/ə* : Gk. *ἔποι*, Lat. *iacio* 'throw' would regularly have the vowel *e* < *ē* in the singular and *a* < *ə* in 1 and 2 pl., while pres. 3 pl. should be *yenzi* < IH *y-énti*, and pret. 3 pl. *yer* < IH *y-ēr*. The old 3 pl. forms are found (*i-en-zi*, *i-e-en-zi*, *i-en-du*, *i-e-ir*), and it is possible to interpret *i-ya-an-zi* and *i-ya-an-du* in the same way [43], although they may equally well stand for thematic *yanzi*, *yantu*. In 1 and 2 s. *a* has pretty thoroughly banished *e*, e.g. *yami* (*i-ya-mi*), *yasi* (*i-ya-ši*),¹⁷ pret. 1 s. *yanun* (*i-ya-nu-un*). Pres. 3 s. *yezi* (*i-ya-zi*, *i-e-iz-zi*), 1 pl. *yaweni* (*i-ya-u-e-ni*), etc. fitted the thematic conjugation without change.

¹⁵ Citations in Götze, Madd. 86-91. The pres. 3 pl. *kapuwenzi* (*kap-pu-u-en-zi*—KBo. 6. 2. 4. 20) if not a blunder, is a non-thematic form.

¹⁶ *twarnazi* (*tu-wa-ar-na-zi*—KBo. 6. 3. 1. 31) and imper. 3 s. *twarnatu* (*du-wa-ar-na-du*—KBo. 2. 3. 2. 42) preserve the vowel of the original conjugation according to the *a*-class of the *hi*-conjugation. Cf. *hulazi*.

¹⁷ *i-e-si* (KBo. 5. 3. 2. 49) may be a trace of the original conjugation, but even original thematic verbs vary in the vocalism of 2 s.

1. Primary Verbs

298. From ablaut bases of the type *deiketei* both IE and Hittite derive three formations, which go back respectively to IH *déikti*, *dikéti*, and *déiketi*. Obviously the third form, with full grade vowels in successive syllables, resulted from a contamination of the other two, but in the IE languages it is the most frequent of all and increasingly so. In Hittite, however, the first type is far more frequent than the other two combined. In the following discussion the type IH *déikti* (including all verbs with full grade of the root and with no suffix) is treated under the caption, "Root Verbs of the *mi*-Conjugation". The rarer types, IH *dikéti* and *déiketi*, are grouped together under the caption, "Primary Thematic Verbs".

Root Verbs of the *mi*-Conjugation

299. A number of original non-thematic presents with radical vowel *e* preserve the alternation between full grade in the singular and reduced or zero grade in the plural, namely; *eszi* (*e-eš-zi*) : *asanzi* (*a-ša-an-zi*) 'be'; *etmi* (*e-it-mi*), *ezzi* (*e-iz-za-az-zi*) : *atweni* (*a-tu-e-ni*), *azteni* (*az-za-aš-te-ni*), *atanzi* (*a-da-an-zi*) 'eat'; *hwekzi* (*hu-u-e-ik-zi*, *hu-e-ik-zi*) : *hukanzi* (*hu-u-kán-zi*) 'conjure'; *kwemi* (*ku-e-mi*), *kwesi* (*ku-e-ši*), *kwenzi* (*ku-en-zi*) : *kunanzi* (*ku-na-an-zi*) 'strike'; *kwerzi* (*ku-ir-zi*, *ku-e-ir-zi*) : *kuranzi* (*ku-ra-an-zi*) 'cut off'; *seszi* (*še-eš-zi*) : *sasanzi* (*ša-ša-an-zi*—KUB 25. 37. 4. 36) 'sleep'; *wehzi* (*ú-e-iḫ-zi*) : *wahanzi* (*wa-ḫa-an-zi*) 'turn'.

300. Phonetic law has obliterated ablaut in verbs containing original *er* + consonant [76]; e.g. *harzi* (*ḫar-zi*) : *harkanzi* (*ḫar-kán-zi*) 'have', *harkzi* (*ḫar-ak-zi*) 'is ruined', *harpzi* (*ḫar-ap-zi*) 'places', *karpzi* (*kar-ap-zi*) 'raises', *mark-* (pret. *ma-ra-ak-ta* : pres. 3 pl. *mar-kán-zi*) 'cut up', *sparzzi* (*iš-pár-za-zi*, *iš-pár-za-az-zi*) 'escapes', *starkzi* (*iš-tar-ak-zi*) 'is ill', *tarhzi* (*tar-aḫ-zi*) 'is powerful', *warpzi* (*wa-ar-ap-zi*) 'bathes'. Similarly IH *eu* and *u* yield the same result in Hittite, and we cannot expect ablaut in such verbs as *lukzi* (*lu-uk-zi*) 'kindles', *upzi* (*u-up-zi*) (the sun) 'rises', *kup-* (pret. *ku-up-ta*) 'plan'.

These and other verbs in which ablaut was necessarily lost assisted in levelling the vocalism elsewhere. Thus we find only the full grade of *hves*- (2 pl. *hu-i-iš-te-ni*) 'live', *nenk-* (3 pl. *ni-in-kán-zi*) 'rise, be exhilarated', *wek-* (3 pl. *ú-e-ik-kán-zi*) 'ask'. Even the verbs listed above as preserving their ablaut show forms with vowel levelling; e.g. *eswen* (*e-šu-en*, *e-šu-u-en*) 'we were', *kwewen* (*ku-e-u-en*) 'we struck', *sesanzi* (*še-e-ša-an-zi*) 'they sleep'. *tezi* (*te-iz-zi*) 'speaks' probably comes from

IH *deiti*,¹⁸ and if so we should expect *ti-* in the plural; we find *te-e-te-ni*, etc. Encroachment of the weak grade of the plural upon the singular is to be recognized in *hukmi* (*hu-uk-mi*), *hukzi* (*hu-uk-zi*) beside *hwekzi* 'conjures', *wahzi* (*wa-aḥ-zi*—KUB 1. 13. 1. 49) beside *wehzi* 'turns', and probably in such verbs as *mazt* (pret. *ma-az-za-aš-ta*) 'withstood' and *nahmi* (*na-aḥ-mi*) 'I fear'. The vocalism of *mer-* (pret. *me-ir-ta*, imper. *me-ir-du*, part. *me-ir-an-da*) 'die' is puzzling, since phonetic law [76] demands *a* in the singular and ablaut wants *a* in the plural.^{18a}

301. *paizi* 'goes' demands separate treatment. Contraction of the prefix IH *bhe* (whence Hittite *pe* [128]) with IH *ei-* 'go' yielded IH *bhēimi*, *bhēisi*, *bhēiti* whence regularly Hittite *paimi*, *paisi*, *paizi*. Similarly the IH imperfect 3 s. *bhēit* yielded Hittite pret. *pait*, which functions also as 2 s. [390]. In 1 and 2 pl. we should have **peweni* < IH *bhe-iwes*, etc.; but the long diphthong has spread to these persons yielding *paiweni*, *paiteni*, *paiwen*, *paiten*. The pres. 3 pl. in IH was *bhe-yenti*, which became pre-Hittite *penzi*, whence, by the spread of the ending *anzi* [387], comes Hittite *panzi*. The IH imperfect 1 s. *bhēy̯m* < *bhe-ey̯m* (cf. Skt. *āyam*) should appear as **payun*, since *y* after *a* survives when it is initial in the second syllable [104b]; Hittite pret. 1 s. *paun* must have originated in compounds of three or more syllables, such as **apaun* < **apayun* < IH *apēy̯m* [389]. In the same way *y* was lost in the pret. 3 pl. *paer*.

Here may be mentioned the middle verb *ke-* (*ki-it-ta*, *ki-it-ta-ri*) 'lie', which is assigned full grade of the root solely on account of its IE cognates, Skt. *śete* and Gk. *κεῖται*.

302. Among the roots with long radical vowel we find ablaut in the following:

eku-zi (*e-ku-zi*) : *akwanzi* (*a-ku-wa-an-zi*) 'drink, give to drink'; cf. OIsl. *æger* 'sea' : Lat. *agua* 'water'. Vowel levelling appears in 2 pl. *e-ku-ut-te-ni*, *e-ku-wa-te-ni*, pret. 1 pl. *e-ku-e-en*, imper. 2 pl. *e-ku-ut-te-en*.

epzi (*e-ip-zi*) : *apanzi* (*ap-pa-an-zi*) 'seize'; cf. Lat. *co-ēpī* : *apiscor*. The vowel of the singular has spread to all forms of 1 and 2 pl.

eszi (*e-eš-zi*) : *asanzi* (*a-ša-an-zi*) 'set, sit'. Gk. and Skt. have only the middle *ḡṣtau* and *āste* with analogical *ē* from the lost active singular. In Hittite too *ē* has spread to the middle (e.g. *esa* 'sits') and

¹⁸ IH *deyeti* would yield the same result in Hittite, but thematic primary verbs are less common.

^{18a} Adelaide Hahn suggests the influence of *hwes-* 'live'; cf. Lat. *mortuus* after *virus*.

it frequently appears in the active plural (e.g. 3 pl. *e-ša-an-zi*). On the other hand, analogically reduced grade in the singular is even more common than the full grade (e.g. *a-aš-zi*).

wetezi (*ú-e-te-iz-zi*), pret. 1 s. *wetenun* (*ú-e-te-nu-un*), 3 s. *wetel* (*ú-e-te-it*) 'build' < IH *we-dhē* 'place here, put in its place' makes 3 pl. *wetanzi* (*ú-e-da-an-zi*) < IH *we-dh-nti* (cf. Skt. *dadhati*), pret. 1 pl. *wetumen* (*ú-e-du-me-en*, *ú-e-tum-me-en*) < IH *we-dhu-me* < pre-IH *we-dhə-we*, 2 pl. *wetaten* (*ú-e-ta-at-te-en*, *ú-i-ta-at-te-en*) < IH *we-dhə-te*. Since the entire plural went like the *a*-class of the *hi*-conjugation, there are occasional metaplastic forms such as 1 s. *wetahi* and *wetahun* and pret. 3 s. *wetas*.¹⁹

pehutezi (*pt-e-ḫu-te-iz-zi*) 'leads, conducts' < IH *bhe-ho-u-dhē-ti* follows the conjugation of *wetezi* 'builds' except that it shows some vowel levelling (imper. 2 pl. *pt-e-ḫu-te-tin*) and no metaplastic forms of the *hi*-conjugation. I cannot cite any form of the 1 pl.

Primary Thematic Verbs

303. Thematic verbs without suffix, in spite of their frequency in the IE languages, are strangely few in Hittite. In some cases, to be sure, we lack sufficient evidence to decide between this and some other class. Thus pret. 3 pl. *ḫu-u-up-pt-ir*, part. *ḫu-u-up-pa-an*, *ḫu-u-up-pa-an-du-uš* 'catch, hold' (?) and 3 pl. *li-ip-pa-an-zi* 'spread, smear' may be thematic, but they may as well be root verbs of either type; 3 pl. *ar-ku-wa-an-zi*, pret. 1 s. *ar-ku-wa-nu-un*, verb. n. *ar-ku-u-e-eš-ni*, *ar-ku-e-eš-ni* 'plead' may as well belong to a primary thematic verb as to a denominative in *a(e)* [310].²⁰ *lukezi* (*lu-uk-ki-iz-zi*)²¹ beside *lukzi* 'kindles' is certainly thematic, but it may equally well belong to the type IH *dikēti* or IH *dēikēti*. In a few instances there is room for doubt about a common verb; e.g. *te-* (*te-iz-zi*, 1 s. *te-mi*, *te-e-mi*, 2 s. *te-ši*, 2 pl. *te-e-te-ni*, pret. 3 s. *te-it*, imper. 2 pl. *te-it-te-en*) 'speak' is probably a root verb (IH *deiti*) with levelling of the radical vowel, but it may come from IH *deyeti*; for this form would yield Hittite *tezi*, and all other forms with thematic vowel *e* would similarly contract; then analogy may have substituted *e* for *eya* in the rest of the paradigm. Such uncertainties are

¹⁹ No doubt the verb *uta-* 'bring' was the chief model for these forms on account of its similar form and meaning.

²⁰ Otherwise Götze, *Madd.* 63 fn. 1.

²¹ Some may be inclined to interpret this as *lukzi* with non-phonetic vowels to make possible the double writing of *k* and *z*. In the middle also *lu-uk-kat-ta*, *lu-uk-kat-ti*, *lu-kat-ta*, *lu-kat-ti*, *lu-kat-te* may be interpreted *lukta*, etc.

not numerous enough, however, to cast any doubt upon the generalization that primary thematic verbs are surprisingly few in Hittite.

304. The type IH *dikéti* is to be recognized in *wasezi* (*wa-aš-še-iz-zi*—KUB 12. 58. 1. 30) ‘clothe’ < IH *wšéti*. Other forms of the verb are 2 s. *wa-aš-ša-a-ši* (KUB 12. 58. 3. 36), 3 pl. *wa-aš-ša-an-zi*, imper. 3 pl. *wa-aš-ša-an-du*, part. *wa-aš-ša-an-za*, etc. The corresponding root verb survives, oddly enough with full grade generalized, in imper. 2 pl. *ú-e-eš-tin*. Probably we have a parallel instance in *wakezi* (*ú-wa-ak-ki-iz-zi*—KUB 14. 4. 3. 20) beside frequent *wekzi* ‘asks’. It is possible, however, to interpret the form as *wewakezi* [46], and to see in it a meta-plastic form beside *wewaki* (*ú-e-wa-ak-ki*) ‘asks’.

The defective conjugation of *tai* (*da-a-i*) ‘places’ is supplemented by forms from a thematic stem *tiya-* (e.g. 1 pl. *ti-ya-u-e-ni*, *ti-i-ya-u-e-ni*; 3 pl. *ti-an-zi*, *ti-ya-an-zi*, *ti-i-ya-an-zi*; part. *ti-an-za*, *ti-ya-a-an*), and we have also a number of forms from this stem that rival forms of *tai*; e.g. 3 s. *tiyezi* (*ti-ya-zi*), pret. 3 s. *tiyet* (*ti-ya-at*), 1 pl. *tiyawen* (*ti-ya-u-en*), 3 pl. *tiyer* (*ti-i-e-ir*). In view of the diphthongal forms of *tai* (e.g. *da-a-i*, *da-it-ti*, *da-a-iš*, *da-a-ir*, *da-a-iš-tin*) and of Skt. forms indicating a diphthongal base (e.g. *adhītam*, *adhīmahi*, *dheyām*, *adhāyi*) we must derive Hittite *tiyezi* from IH *dhīyeti*. Just so *shīyanzi* (*iš-ḫi-ya-an-zi*, *iš-ḫi-an-zi*) ‘they bind’ (also 2 pl. *iš-ḫi-ya-at-te-e-ni*, pret. 1 s. *iš-ḫi-ya-nu-un*, 3 s. *iš-ḫi-ya-at*, 3 pl. *iš-ḫi-i-e-ir*, imper. 3 pl. *iš-ḫi-ya-an-du*, part. *iš-ḫi-ya-an-za*) beside 3 s. *shai* (*iš-ḫa-a-i*), pret. 1 s. *shehun* (*iš-ḫi-iḫ-hu-un*) : Skt. *siṣāya* ‘he bound’; *spīyanzi* (*iš-pi-ya-an-zi*) ‘they sate themselves’ (also pret. 3 pl. *iš-pi-i-e-ir*, imper. 2 s. *iš-pi-ya*, 3 pl. *iš-pi-an-du*, part. *iš-pi-ya-an-te-eš*) beside *spai-* (imper. 2 s. *iš-pa-a-i*) : Skt. *sphāyati* ‘fatten’; *peyanzi* (*pi-an-zi*, *pi-ya-an-zi*, *pi-e-an-zi*—KUB 13. 3. 2. 19) ‘they give’ (also 1 pl. *pi-i-ya-u-e-ni*, pret. 1 pl. *pi-ya-u-e-en*, 3 pl. *pi-i-e-ir*, imper. 3 pl. *pi-an-du*, *pi-ya-an-du*, part. *pi-ya-an-za*) beside *pai* (*pa-a-i*) ‘he gives’. As *pai* comes from IH *bhe-ēi*, so *peyanzi* comes from IH *bhe-yonti*; and as *tiyezi* rivals *tai* in the 3 s., so we have *peyezi* (*pi-e-ya-zi*—KUB 13. 9. 3. 5), pret. *peyet* (*pi-i-e-it*), pres. 1 s. *peyemi* (*pi-i-e-mi*), 2 s. *peyesi* (*pi-i-e-ši*).²² IH *bhe-yeti* would regularly become Hittite **pezi*, and so all the forms with stem *peye-* must be analogical. We should expect the 3 pl. of *huwai* (*ḫu-wa-a-i*) ‘runs, marches, flees’ < IH *ho-we-ēi* to be **huweyanzi*; but the orthography points to *huwīyanzi* (*ḫu-u-ya-an-zi*, *ḫu-ya-an-zi*, *ḫu-u-i-ya-an-zi*), which must be analogical.

²² No doubt Sommer, BoSt. 7. 47, and Götze, Madd. 113, are right in translating some of these forms ‘schicken’; but there is no good reason for positing a second verb.

We should probably recognize the same formation in *tiyezi* (*ti-ya-zi*, *ti-i-e-iz-zi*, *ti-ya-az-zi*) 'comes', which may be equated with Skt. *ḍīyati* 'flies' on the basis of IH *ḍīyēti*.

305. The type IH *dēiketi*, which is so common in IE, I have been able to identify in only a few Hittite words. The missing 3 pl. of *nai* (*na-a-i*) 'leads, turns, drives' is supplied by *neyanzi* (*ne-ya-an-zi*, *ne-e-ya-an-zi*), which must be equated with Skt. *nayanti* 'they lead'. Hittite presents several other forms of this stem, namely part. *neyanz* (*ne-an-za*, neut. *ne-ya-an*), imper. 2 pl. *neyaten* (*ne-ya-at-tin*), pret. 3 pl. *neyer* (*ne-i-e-ir*), and a pres. 2 s. with the ending proper to the *hi*-conjugation (*ne-ya-at-ti*). The isolated pret. *net* (*ne-it*—KBo. 4. 2. 3. 50) shows the regular development of IH *neyet*; but in general the forms with thematic vowel *e* have been supplanted by perfect forms. In the middle, where the pre-Hittite vowel was *o* in all forms [375], we find *neya* (*ne-i-ya*), *neyari* (*ne-e-a-ri*, *ne-ya-ri*), etc. For *weya*- 'drive, send' < IH *weyo/e* : Av. *vayeiti* 'drives away', a complete and regular paradigm was reconstructed on the analogy of the forms with thematic vowel *a*; e.g. 3 s. *weyezi* (*ú-i-ya-zi*, *ú-i-e-iz-zi*). From *emeya*- 'mix' < IH *en* + *meyo/e* : Skt. *mayate* 'exchange' we have 2 s. *emeyati* (*im-me-at-ti*), 3 s. *emeyezi* (*im-mi-ya-az-zi*), etc. Pret. 1 s. *i-mi-e-nu-un* (KBo. 3. 46. 1.13) for anticipated **emeyanun* is puzzling; either a sign (*ya* or *a*) has been omitted or we have *emenun* on the analogy of phonologically regular **emezi*, **emet*, etc. The diphthongal verb *mai* 'prosper, grows ripe' : Skt. *mayas* 'comfort, pleasure', Lat. *mitis* 'mellow' has part. acc. masc. *mi-ya-an-da-an* and midd. imper. *mi-i-ya-ru*; but there is no way of deciding whether to read *meya*- (like *neyanz* 'led') or *miya*- (like *tiyanz* 'placed').

2. Derivative Verbs

*iya*²³

306. The suffix *iya* forms verbs directly from roots, from verb stems already characterized, and from noun and adjective stems. It is not always possible to distinguish between the three processes, and sometimes it is difficult to distinguish between primary verbs of the type *tiyezi* [304] and verbs with the primary suffix *iya*. Here we shall merely list some easily analyzed derivatives of each kind.

307. *iya* seems to be a primary suffix in *iski-ya* (*iš-ki-ya-iz-zi*, part. *iš-ki-ya-an*) beside *iske/a-* (*iš-ga-a-mi*, *iš-ki-iz-zi*, *iš-kán-zi*, *iš-ki-ir*, imper. *iš-ki*, *iš-ki-id-du*) 'anoint'; *memi-ya*- beside *mema-* 'say'; *spari-ya*-

²³ Götze, Madd. 97–100.

(*iš-pár-ri-ya-az-zi*, *iš-pár-ri-iz-zi*, *iš-pár-ri-ya-u-wa-ar*) beside *spari* (*iš-pa-a-ri*) 'spread, scatter, destroy' : Gk. *σπελω*; *taliya-* beside *tala-* 'leave, let go'; *tariya-* (*da-ri-ya-nu-un*, *da-a-ri-ya-at*, *da-a-ri-ya-an-te-eš*) 'call to' beside *tara-* 'declare'; *usiya-* (*uš-ši-ya-an-zi*), *wasiya-* (*wa-aš-ši-ya-zi*, *wa-aš-ši-e-iz-zi*, *wa-aš-ši-ya-an-zi*), *wesiya-* (imper. *ú-e-eš-ši-ya*—KBo. 2. 9. 1. 29) beside *wes-*, *was-* 'put on, clothe'; *wemiya-* 'come upon, find' beside *wa-*, *we-* 'come'.

308. Suffix *iya* is appended to a stem already characterized in *seskiya-* (midd. imper. *še-eš-ki-ya-aḫ-ḫu-ut*—KBo. 3. 16. 2. 9, *še-eš-ki-aḫ-ḫu-ti*—KBo. 3. 18. 2. 13) beside *sesk-* (*še-eš-ki-iz-zi*) and *ses-* (*še-eš-zi*) 'sleep'. Verbs with suffix *na* [353–357] are frequently extended by *iya*; e.g. *arsaniya-* (*ar-ša-ni-ya-at*, *ar-ša-ni-i-e-ir*) 'envy, covet' beside *arsanatalas* 'envier' : Skt. *irasyati* 'envies'; *kweniya-* (part. *ku-en-ni-ya-an-zā*—HT 1. 2. 42) beside *kwenā-* 'smite'; *parsiyaniya-* (*pár-ši-ya-an-ni-an-zi*, *pár-ši-ya-an-ni-it*) beside *parsiyana-* 'break (bread)'; *suniya-* beside *suna-* 'fill'; *walhaniya-* (*wa-al-ḫa-an-ni-an-[zi]*—KUB 11. 34. 4. 13) beside *walhana-* (*wa-al-ḫa-an-na-i*—KUB 7. 13. 1. 16) 'beat'; *yaniya-* (*i-ya-an-ni-ya-an-zi*, *i-ya-an-ni-ya-nu-un*) beside *yana-* (*i-ya-an-na-i*) 'go, march'.

309. Denominatives form the commonest group of verbs with suffix *iya*. The prevailing meaning is 'be that which the primitive noun or adjective denotes'. For convenience verbs from *i*-stems are included in the following list: *ermaliya-* (*ir-ma-li-ya-at-ta-at*, *ir-ma-al-li-ya-at-ta-at*, *ir-ma-li-an-za*) 'be ill' from *ermalas* 'ill'; *hapatiya-* (*ḫa-pa-ti-ya-wa-ar*) 'obey' from *hapatis* 'retainer'; *harnamniya-* (*ḫar-nam-ni-ya-az-zi*, *ḫar-nam-ni-ya-ši*, *ḫar-nam-ni-ya-at*) 'ferment' (?) from *harnamar* (*ḫar-nam-mar*, *ḫa-ar-na-am-mar*) 'dregs'; *hulaliya-* (*ḫu-la-a-li-az-zi*, *ḫu-la-li-ya-an-zi*) 'wind' from *hulali* (*ḫu-la-a-li*, *ḫu-u-la-li*) 'distaff (?)'; winding sheet', perhaps originally "a winding"; *shamiya-* (*iš-ḫa-mi-ya-an-zi*) 'sing' from *shamais* (*iš-ḫa-ma-in*—KUB 12. 11. 3. 30) 'song'; *karuwiliya-* (*ka-ru-ú-i-li-at-ta*—KBo. 3. 7. 3. 21, *ka-ru-ú-i-li-ya-at-ta*—KUB 14. 12. 2. 14) 'be as before' from *karuwilis* 'former'; *kestanziya-* (*ki-iš-ta-an-zi-at-ta-at*—KBo. 3. 22. 2. 46) 'be hungry' from *kestanz* 'hunger'; *kururiya-* (*ku-u-ru-ri-e-it*—KUB 11. 1. 2. 7) 'be hostile' from *kurur* 'hostility, hostile'; *kusaniya-* (*ku-uš-ša-ni-iz-zi*, *ku-uš-ša-ni-ya-zi*, *ku-uš-sa-ni-i-e-iz-zi*) 'hire' from *kusan*, *kusani* 'pay, price'; *lahiya-* (*la-aḫ-ḫi-ya-ši*) 'make a campaign' from *laha* (*la-aḫ-ḫa*) 'campaign'; *lamniya-* (*lam-ni-ya-an-zi*, *lam-ni-ya-at*) 'name, call' from *laman* 'name'; *laziya-* (*la-az-zi-at-ta*) 'be favorable, well' from *lazis* (SIG₅-*iš*) 'favorable, well', *lazais* (*la-az-za-iš*—KUB 17. 10. 2. 31) 'favorable condition'; *lenkiya-*

(*li-in-ki-an-te-eš*, *li-in-ki-ya-an-te-eš*) 'swear by' from *lenkais* 'oath'; *pankariya-* (*pa-an-ga-ri-ya-at-ta-ti*—KBo. 3. 1. 2. 31, 33) 'be prevalent' from the stem of *pankaret* 'with numbers, in force'; *sankuniya-* (*ša-an-ku-un-ni-ya-an-za*) 'be a priest' from *sankunis* 'priest'; *suliya-* (*šu-ul-li-ya-zi*) 'quarrel' from *sulis* (*šu-ul-li-in*—KUB 19. 49. 1. 69) 'a quarrel'; *supiya-* (*šu-up-pi-ya-aḥ-ḥu-ut*—KBo. 3. 16. 2. 8) 'be clean' from *supis* 'clean'; *tarkumiya-* (*tar-kum-mi-ya-iz-zi*, *tar-kum-mi-ya-e-iz-zi*) 'interpret' from **tarkumas* or the like (cf. Akkadian *TARGUMĀNU* 'interpreter'); *tuziya-* (*tu-uz-zi-ya-nu-un*) 'encamp' from *tuzis* 'army, camp'; *urkiya-* (*ur-ki-ya-iz-zi*—KBo. 6. 10. 3. 30) 'trace' from *urkis* (*u-ur-ki-in*—KUB 13. 2. 1. 6, 16) 'a trace'; *utaniya-* (*ut-ta-ni-ya-at-tin*—KUB 17. 8. 4. 5) 'conjure' from *utar* 'word'; *wesiya-* (*ú-e-ši-ya-at-ta-r[i]*—KUB 9. 34. 1. 18, *ú-i-ši-ya-u-wa-aš*—KBo. 3. 4. 3. 72) 'graze' from *wesis* 'pasture'.

*a(e)*²⁴

310. Fully equivalent to the denominative suffix *iya* is the suffix *a(e)* < IH *āyo/e*, which appears as *a* < *aya* < *āyo* where the thematic vowel was *o* but as *ae* < *āye* [108] where the thematic vowel was *e*. There is a tendency for *a* to supplant *ae* in the pres. 2 s. and 2 pl. and in the imper. 2 pl. The suffix originated no doubt with derivatives in *yo/e* from stems in *ā*; but in Hittite it functions as an independent suffix which may be appended to nouns or adjectives of any stem form. Before it a stem vowel *a* or *i* is lost, but stem vowel *u* is retained. Cf. Lat. *armāre*, *illustrāre*, but *fluctuāre*. Apparently the following derivatives in *a(e)* were inherited.

arwa(e)- (*a-ru-wa-a-iz-zi*, *ar-wa-an-zi*) 'bow down' : Gk. ἀράομαι 'pray, curse' beside ἀρά 'prayer, curse', cf. Arc. κάταρρος 'accursed'.

tarma(e)- (*tar-ma-iz-zi*, *tar-ma-a-an-zi*) : Lat. *termino* 'delimit' beside *terminus* 'boundary'.

meta(e)- (*mi-ta-iz-zi*, *mi-ta-a-nu-un*) 'delimit' or perhaps 'fortify' : Lat. *mētor* 'measure, lay out' (a camp) beside *mēta* 'goal post'.

suwa(e)- (*šu-wa-a-iz-zi*, *šu-wa-an-zi*) 'press out, fill, give as security' : Skt. *savas* 'extraction of soma' [80].

311. Denominative verbs whose primitives are citable from Hittite documents are these: *arsa(e)-* (*ar-ša-a-iz-zi*—KBo. 6. 12. 1. 20) 'plant' from *arsis* (*ar-ši-iš*, *ar-ši-in*) 'planted field'; *asuwa(e)-* (*a-aš-šu-[wa-i]*—

²⁴ Götze, Madd. 81-100; Sturtevant, Lang. 5. 8-14. I no longer believe in the etymology of *asus* 'good' given on p. 10 of this article, and Petersen, AJP 51. 252 fn. 4, has convinced me that *ā*-stem nouns existed in IH.

KUB 24. 8. 2. 7, *a-aš-šu-wa-an-za*) 'be good' from *asus* (*a-aš-šu-uš*) 'good'; *ermala(e)*- (*ir-ma-la-an-za*—KBo. 5. 9. 1. 16) 'be ill' from *ermalas* 'ill'; *haluwa(e)*- (*hal-lu-wa-an-zi*, *hal-lu-wa-ir*) 'quarrel' from *halu*- (*hal-lu-wa*, *hal-lu-wa-az*) or *haluwais* (*hal-lu-wa-a-in*, *hal-lu-wa-ya-az*) 'a quarrel'; *hapara(e)*- (*ha-ap-pa-ra-iz-zi*, *ha-ap-pár-ra-an-zi*) 'trade' from *hapar* (*ha-a-ap-pár*, *ha-ap-pár*) 'business transaction'; *hweswa(e)*- (*hu-iš-wa-a-iš*, *hu-is-wa-it*, *hu-u-iš-wa-an-za*) 'be alive' from *hwesus* 'alive'; *irha(e)*- (*ir-ha-a-iz-zi*, *ir-ha-a-an-zi*) 'finish' from *irhas* (*ir-ha-a-aš*, *ir-ha-aš*) 'boundary'; *iwarwa(e)*- (*i-wa-a-ar-wa-ir*—KBo. 3. 21. 2. 11) 'give an *iwaru*' from *iwaru* (*i-wa-ru*, *i-wa-a-ru*) 'share of one's father's estate'; *kankata(e)*- (*ga-an-ga-da-a-iz-zi*—KBo. 5. 2. 4. 59) 'offer *kankati*' from *kankati* (*ga-an-ga-a-ti*, *ga-an-ga-ti*) 'sacrificial gruel'; *kenzuwa(e)*- (*gi-en-zu-wa-i-ši*, *gi-en-zu-wa-it*) 'be friendly' from *kenzu* (*gi-en-zu*, *gi-in-zu*) 'friendship'; *kutruwa(e)*- (*ku-u-ut-ru-wa-a-iz-zi*—KBo. 6. 4. 4. 7, *ku-ut-ru-wa-a-iz-zi*—ib. 10) 'make one a witness' from *kutrus* 'witness'; *luluwa(e)*- (*lu-lu-wa-it*, midd. *lu-lu-wa-it-ta*) 'cause to prosper' from *lulu* (*lu-ú-lu*, *lu-lú-u*) 'prosperity'; *parkwa(e)*- (*pár-ku-wa-an-zi*—KUB 13. 9. 3. 20; 14. 14. 2. 7) 'be pure' from *parkus* 'pure'; *sarwa(e)*- (*ša-ru-wa-a-it*, *šar-wa-it*) 'plunder, sack' from *saru* (*ša-a-ru*) 'booty'; *sula(e)*- (*šu-ul-la-a-nu-un*, *šu-ul-la-a-it*) 'quarrel, fight' from *sulis* (*šu-ul-li-in*) 'a quarrel'; *taksula(e)*- (*ták-šu-la-iz-zi*, *ták-šu-la-a-eš*) 'make peace, be friendly' from *taksul* 'peace, peaceful'; *wara(e)*- (*wa-ar-ra-a-iz-zi*, *wa-ar-ra-it*) 'protect' from *waris* (*wa-ar-ri-iš*) 'help, protection'.

312. Denominatives in *a(e)* and in *iya* are sometimes quotable from the same primitives without apparent difference of meaning. Examples are *ermala(e)* : *ermaliya*- 'be ill'; *parkwa(e)*- : *parkwiya*- (*pár-ku-i-ya-ta-at*—KUB 24. 8. 1. 31, *pár-ku-ya-a-tar*—KUB 1. 16. 2. 67) 'be clean'; *sula(e)*- : *suliya*- 'quarrel, fight'; *tarkuma(e)*- (*tar-kum-ma-an-zi*, imper. *tar-kum-ma-a-i*) : *tarkumiya*- 'interpret'.

313. There remain a number of verbs in *a(e)* for which no substantive is citable as a source. Since, however, no other source is known for any verb of this type, it seems safe to assume denominative origin for verbs like *stanta(e)*- (pret. *iš-ta-an-ta-it*, *iš-ta-an-da-a-it*) 'tarry' on the basis of their form alone.

314. There is a tendency for denominatives in *a(e)* to be transferred to the regular thematic conjugation. All forms with original stem vowel *o* may be understood as belonging to either type, and that is no doubt the source of the change. Examples are *arsezi* (*ar-še-iz-zi*—KBo. 6. 12. 1. 12) beside *arsa(e)*- 'plant'; *hweswe*- (*hu-u-iš-šu-u-iz-zi*—KBo. 5. 3. 3. 31, *hu-iš-u-e-te-en*—KUB 14. 1. 1. 12) beside *hweswa(e)*-

'be alive'; *kapuwe-* beside *kapuwa(e)-* [297] 'count'; *sarwe-* (*ša-ru-u-e-ir* —KUB 17. 21. 2. 5) beside *sarwa(e)-* 'sack, plunder'; *sule-* (*šu-ul-li-it*, *šu-ul-li-i-te-en*, *šu-ul-li-ir*) beside *sula(e)-* 'quarrel, fight'; *suwe-* (*šu-ú-iz-zi*, *šu-ú-i-iz-zi*, *šu-ú-i-e-iz-zi*) beside *suwa(e)-* 'press out, fill'.

s²⁵

315. The suffix *s*, which appears in IE present and aorist stems, forms Hittite verb stems and also preterites of the *hi*-conjugation. Forms in *s* that are associated with verbs of the *hi*-conjugation correspond with these in meaning. The rest show either perfective or inceptive meaning for the most part; e.g. *tamas-* 'press' a lump, 'overrun' a country, 'shut in' an army; *kes-* 'become'. In some verbs, however, there is no trace of the momentaneous aspect, and possibly some of these have *s* of a different origin; e.g. *ars-* 'flow'.

On the basis of form derivative verbs in *s* fall into two classes: (1) verbs of the *mi*-conjugation with pret. 3 *s*. ending in *t* (*ta*, *it*); (2) defective verbs with pret. 3 *s*. ending in *s*. The first class is subdivided into four groups corresponding respectively to the Skt. *s*-aorist [316], *sa*-aorist [317], *iṣ*-aorist [318], and *siṣ*-aorist [319].²⁶ All forms of the second class [320, 321] as well as many of the first are so closely associated with verbs of the *hi*-conjugation that they must be included in the paradigms of that conjugation; but historically they must all contain a stem suffix *s*.

316. In the following words suffix *s* is appended directly to a monosyllabic root with or without reduplication. In several of them we find the ablaut variation of IE *s*-aorists from roots ending in a diphthong, namely lengthened grade in the indic. act. sing. and full grade elsewhere; but there is much levelling of the vocalism, and in many cases phonetic law effectually hides the original ablaut.

aus- (3 *s*. *a-uš-zi*, pret. 2 *s*. *a-uš-ta*, 3 *s*. *a-uš-ta*, *a-ú-uš-ta*, imper. 3 *s*. *a-uš-du*), *us-* (2 pl. *uš-te-ni*—KBo. 3. 28. 2. 9) beside *au-* (2 *s*. *a-ut-ti*, pret. 3 pl. *a-ú-e-ir*) 'see': Lat. *aurōra*, Hom. *ῥῶς*, Dor. *ῥῶς* 'dawn'. The IE forms all contain *s*, but Hittite proves that the *s* is formative.

kars- (1 *s*. *kar-aš-mi*, 3 *s*. *kar-aš-zi*, 3 pl. *kar-ša-an-zi*, pret. *kar-aš-ta*) beside *kwer-*, *kur-* 'cut off'.

kes- (2 *s*. *ki-iš-ta-ti*, pret. 1 *s*. *ki-iš-ḫa-ḫa-at*, *ki-iš-ḫa-at*, 2 *s*. *ki-iš-ta-at*, imper. 2 pl. *ki-iš-du-ma-at*) 'become' beside *ke-* (*ki-it-ta*, *ki-it-ta-ri*) 'lie': Skt. aor. subj. 3 pl. *śeṣan* (RV 1. 174. 4) 'they shall lie' beside *śete* 'lies'.

²⁵ Lang. 8. 119-32.

²⁶ For Tocharian preterites with *s*, see Petersen, Lang. 9. 28 f.

kikes- (midd. *ki-ik-ki-iš-ta-ri*, *ki-ik-ki-iš-ta-a-ri*, pl. *ki-ik-ki-ša-an-ta*) 'become' beside *ke-* 'lie'.

kuskus- (*ku-uš-ku-uš-zi*, 3 pl. *ku-uš-ku-uš-ša-an-zi*) 'mix' beside *sakunesk-* 'gush' : Gk. *ἔχευα* < **ἐχευσα* 'I poured'.

nais- (pret. *na-iš-ta*, *na-eš-ta*, imper. 2 pl. *na-iš-tin*, *na-eš-tin*, midd. imper. *na-a-iš-ḫu-ut*, *na-iš-ḫu-ut*) beside *nai-* (2 s. *na-it-ti*, 3 s. *na-a-i*) 'lead, turn, drive'; *penes-* (pret. *pí-en-ni-iš-ta*, *pí-en-ni-eš-ta*) 'drive with one', *unes-* (*u-un-ni-eš-ta*, *u-un-ni-iš-ta*) 'drive hither' : Skt. *nī-* 'lead'.

pais- (2 s. *pa-iš-ti*—KBo. 5. 6. 3. 13, pret. 2 s. *pa-iš-ta*) < IH *bhe-ēis-*, *pes-* (2 pl. *pí-eš-te-e-ni*, *pí-e-eš-te-e-ni*, pret. 3 pl. *pí-eš-ši-ir*, imper. 2 pl. *pí-eš-tin*, and by analogy pres. 2 s. *pí-eš-ti*, 3 s. *pí-eš-zi*, pret. *pí-eš-ta*, *pí-e-eš-ta*) < IH *bhe-is-* beside *pai-* (*pa-a-i*) 'give'.

pars- (pret. *pár-aš-ta*, 3 pl. *pár-še-ir* 'flee' beside *parh-* (*pár-aḫ-zi*) 'drive' : Goth. *faran* 'go, travel'.

paszi (*pa-a-aš-zi*) 'drinks' : Skt. aor. midd. *pāsta* beside *pāti* 'drink'. Hittite *pasi* (*pa-a-ši*) 'drinks' is apparently metaplastic.

We may suspect that the following verbs are similarly formed, but until we find cognates without *s* we cannot be sure: *maus-* (*ma-uš-zi*, midd. *ma-uš-ta*), *mus-* (part. *mu-ša-a-an*—KUB 13. 2. 2. 30²⁷) 'fall'; *paprszi* 'is convicted'; *punus-* or *pnus-* (*pu-nu-uš-zi*) 'ask' (cf. Gk. *πνέω* 'breathe', *πεννυμένος* 'wise, discreet').

317. Thematic *se/a* appears in *karsezi* (*kar-aš-še-iz-zi*) beside *karszi* (*kar-aš-zi*) 'cuts off'; *kesa-* (*ki-ša-ri*, *ki-i-ša*, *ki-ša*, pret. *ki-ša-at*, imper. 3 s. *ki-ša-ru*) beside *kes-* (2 s. *ki-iš-ta-ti*) 'become' and *ke-* 'lie'; *tekuse/a-* (1 s. *te-ik-ku-uš-ša-mi*, pret. *te-ik-ku-uš-ši-e-it*) 'show' : Gk. *ἐδείξα*, Skt. *adikṣat*.

318. From dissyllabic heavy bases we have two or three derivatives with suffix *s*. Both in these derivatives and in verbs formed by analogy the vowel of the second syllable is sometimes *a* < *ə* and sometimes *e*. What the source of this *e* is I do not know; but we may compare Gk. *ῥάμσα* beside *ἐδάμσα*.

tamas-, *tames-* (*da-ma-aš-zi*, pret. *ta-ma-aš-ta*, 3 pl. *ta-ma-aš-ši-ir*, pret. 1 pl. *ta-me-eš-šu-e-en*) 'press, oppress, shut in' : Gk. *ἐδάμσα*, *δάμνημι* 'work (metal), subdue'; cf. *δαμάζω*, Lat. *domitus*, Skt. *damitvā*.

kane- (*ga-ne-eš-zi*, pret. *ka-ni-eš-ta*) 'find, favor' : Skt. *akāniṣam* beside perf. *cākana* 'be pleased, enjoy'.

Very likely we should include here *stamas-* (*iš-tam-ma-aš-zi*, 2 s. *iš-ta-ma-aš-ti*, pret. *iš-ta-ma-aš-ta*) 'hear' beside *stamar* 'ear' : Gk. *στόμα*. If so we must assume an ablaut base *stemā-*.

²⁷ Part. *ma-uš-ša-an-za* (KUB 4. 1. 4. 26), like the middle forms, is due to an extension of the vocalism of the active singular.

The suffix form *es* is probably analogical in *lenkest* (*li-in-ki-eš-[t]a*—KUB 14. 14. 1. 15) = *lenkt* (*li-in-ik-ta*, *li-in-kat-ta*, *li-ik-ta*) 'swore'. *tukeszi* (*du-uk-ki-iš-zi*—KUB 5. 6. 2. 61) 'belongs to'(?), perhaps contains an extension of the stem of *tuka-* (*du-uq-qa-ri*, pret. *tu-uq-qa-at*) 'be important' (cf. Gk. *τυγχάνω*, *ἐρύχνησα*).

Here may be listed a number of preterites from *hi*-conjugation verbs of the second class, whose history is not clear to me. At least in appearance they go with the derivatives of dissyllabic bases. Examples are *kwenest* (*ku-in-ni-eš-ta*—KUB 17. 3. 3. 4) beside *kwenā-* (1 pl. *ku-en-nu-um-me-e-ni*, 3 pl. *ku-en-na-an-zi*) 'strike, slay', *memest* (*me-mi-iš-ta*) beside *mema-* 'say', *sanest* (*ša-an-ni-eš-ta*) beside *sana-* (*ša-an-na-a-i*, 2 s. *ša-an-na-at-ti*) 'conceal', *sunest* (*šu-un-ni-iš-ta*—KUB 1. 1. 2. 79) beside *suna-* 'fill', *talest* (*da-li-eš-ta*, *ta-a-li-eš-ta*) beside *tala-* 'leave, let go', *tarnest* (*tar-ni-iš-ta*—KUB 19. 60. 4. 49) beside *tarna-* 'put in', *upest* (*up-pi-eš-ta*) beside *upa-* 'send'. Cf. [160, 337].

319. Three verbs with suffix *sa* [358] make a preterit 3 s. in *est*; namely *esest* (*e-eš-še-eš-ta*) from *esa-* (1 s. *e-eš-ša-aḫ-hi*, pret. 1 s. *e-eš-ša-aḫ-ḫu-un*) 'set, prepare'; *halzesest* (*ḫal-zi-eš-še-eš-ta*—KBo. 3. 4. 2. 12) from *halzesa-* (*ḫal-zi-iš-ša-i*, 2 s. *ḫal-zi-iš-ša-at-ti*) 'call, recite'; *waresest* (*wa-ar-ri-eš-še-eš-ta*, *wa-ar-ri-iš-ši-iš-ta*) from *waresa-* (2 s. *wa-ar-ri-eš-ša-at-ti*) 'protect'. From *tekuse/a-* 'show' there is a pret. 3 s. *te-ik-ku-uš-še-eš-ta* (KBo. 4. 12. 1. 12). Possibly *tetasest* (*te-e-da-ši-iš-ta*) of unknown meaning belongs here.

320. The pret. 3 s. of the *hi*-conjugation is most frequently formed by final *s*. The diphthongal verbs (i.e. verbs of the third class) show lengthened grade (or full grade of a heavy base) before the ending; e. g. *nais* (*na-a-iš*, *na-iš*) 'he led, turned, drove' beside *neyanzi*. Accordingly preterites of the *a*-verbs (second class) such as *tas* (*da-a-aš*) 'he took' and *memas* (*me-ma-aš*) 'he said' undoubtedly contain an original long vowel (IH *ō* or *ā*) rather than *ə*. Since these verbs attach the ending *s* directly to the root we should expect preterites from consonant stems with *s* immediately after the final consonant of the stem; from *aki* (*a-ki*) 'he dies' we should expect pret. *aks*. That is surely the way to interpret the spellings *a-ak-ki-iš*, *ak-ki-iš*, and *ag-ga-aš* (VBoT 1. 24), and *a-ar-aš* can mean nothing but *ars* [33]. Other verbs show such variant forms as *ka-ri-pa-aš*, *ša-ak-ki-iš*, and *wa-aq-qa-ri-eš* (Bo. 2800. 2. 8²⁸), although I cannot cite more than one vowel for any one verb. The only way to make the entire group consistent is to disregard all the

²⁸ Friedrich, Vert. 2. 171.

vowels written before final *s*. It must be admitted, however, that these verbs may have been influenced by the other aorist types; *krepas*, *sakes*, *wakares*, etc. are possible.

321. There can be no doubt that the ending *s* is identical with the suffix of the IE *s*-aorist, and so we must compare *nais* with Skt. *naiṣ* 'led' < IH *nēist*. Similarly *memas* < IH *memnāst* corresponds in stem to Gk. *ἐμνησα* 'I reminded', except for the reduplication. *krepas* (*ka-ri-pa-aš*—KUB 5. 7. 1. 34) 'it devoured' from pres. *krapī* (*ka-ra-a-pí*) : Skt. *jagrābha* 'he seized' probably comes from IH *ghrēbhst*; cf. Skt. *avākṣam* = Lat. *vēxī*. These forms, then, fit into the framework of the IE *s*-aorist quite as well as the verbs with pret. in *st* [315]. The Hittite difference between the two groups is due solely to the fact that forms used as preterites of the *hi*-conjugation and more or less isolated from other *mi*-conjugation forms tended to retain the phonologically correct final *s* < *st* [118], while such forms as **tamas* 'oppressed' beside *tamaszi* (*da-ma-aš-zi*) 'oppresses' tended to become *tamast* (*ta-ma-aš-ta*) on the analogy of the pair *paizi* 'goes', *pait* 'went', etc.

322. Several forms already treated show cross influence among the several classes of derivative verbs with suffix *s*. An additional type calls for mention. From *hi*-conjugation verbs of the second class we have considered preterites of the types *memas* and *memest*; contamination of these must be responsible for *hules* (*ḥu-ul-li-iš*—KBo. 3. 38. 2. 24) from *hula-* (*ḥu-ul-la-a-i*, 3 pl. *ḥu-ul-la-an-zi*, pret. 1 pl. *ḥu-ul-lu-mi-en*) 'smite', *tales* (*da-a-li-iš*—KBo. 3. 38. 2. 31) from *tala-* 'leave, let go', *yanes* (*i-ya-an-ni-eš*, *i-ya-an-ni-iš*) from *ya-* 'go, march'. A different mingling of the same elements appears in *sanast* (*ša-na-aš-ta*—KBo. 3. 24. 1. 15) from *sana-* 'conceal'.

*es*²⁹

323. The suffix *es* forms from adjective verbs that mean 'become what the adjective denotes'. The following are typical: *harkes-* (*ḥar-ki-e-eš-zi*) from *harkis* 'white', *hatukes-* (*ḥa-du-ki-iš-zi*) from *hatuki-* (pl. *ḥa-tu-ga-e-eš*) 'frightful', *italawes-* (*i-da-la-u-e-eš-zi*) from *italus* 'bad', *kalaresh-* (*kal-la-ri-eš-zi*—KUB 4. 1. 4. 29) from *kalar* 'bad', *makes-* (pret. *ma-ak-ki-eš-ta*) beside *mekis* 'great', *marses-* (pret. 3 pl. *mar-še-eš-še-ir*—KBo. 3. 1. 1. 20) from *marsas* 'bad', *melites-* (imper. 2 s. *mi-li-it-e-eš*—Bo. 860. 2. 7, 3 s. *mi-li-ti-iš-du*—KUB 17. 10. 2. 27) from *melitus* 'honied, sweet',³⁰ *meyes-* (imper. 2 s. *mi-i-e-eš*—VBoT 24. 3. 38,

²⁹ Götze, Hatt. 69, 94, Kf 1. 181, 240.

³⁰ Ehelolf, OLZ 36. 2 f.

3 s. *mi-e-eš-du*—KUB 24. 1. 4. 15) from *meyus* 'rich' or 'soft',³¹ *nakes-* (*na-ak-ki-e-eš-zi*, pret. *na-ak-ki-e-eš-ta*, *na-ak-ki-iš-ta*) from *nakis* 'heavy', *parkwes-* (*pár-ku-e-eš-zi*, *pár-ku-e-eš-zi*) from *parkwis* 'clean', *sales-* (*šal-li-e-eš-zi*—KBo. 3. 3. 3. 30, pret. *šal-li-e-eš-ta*—KBo. 3. 7. 3. 6) from *salis* 'great', *tankwes-* (MI-*iš-zi*) from *tankwis* 'black, dark', *tepawes-* (*te-pa-u-e-eš-zi*, pret. *te-e-pa-u-e-eš-ta*) from *tepus* 'small', *uktures-* (pret. *uk-tu-u-ri-e-eš-ta*—KUB 14. 13. 1. 49) from *ukturis* 'firm, continuous'.

There are several apparently similar verbs beside which no suitable adjectives are quotable; e.g. *hatules-* (pret. *ha-at-tu-li-iš-ta*—KUB 19. 10. 1. 7, imper. *ha-ad-du-li-e-eš-du*—KBo. 4. 6. 1. 18) 'become well', *kartimes-* (TUKU.TUKU-*e-eš-zi*, pret. *kar-tim-mi-e-eš-ta*—KUB 8. 48. 1. 15) 'become angry', *lukes-* (pret. *lu-uk-ki-e-eš-ta*—KUB 8. 48. 1. 1) 'grow light', *maninkwes-* (3 pl. *ma-ni-in-ku-e-eš-ša-an-zi*—KUB 8. 35. 1. 3) 'become short', *miyahuntes-* (*mi-ya-ḥu-un-te-eš-[zi]*—KUB 14. 12. 1. 12) 'grow old', *sules-* (*šu-ul-li-e-eš-zi*—KUB 9. 15. 2. 14, *šu-ul-li-iš-zi*—ib. 21) 'become quarrelsome', *tutumes-* (imper. 3 s. *du-ud-du-um-mi-iš-du*—KUB 7. 58. 1. 10) 'become deaf', *wantes-* (*wa-an-te-eš-zi*—KUB 14. 12. 1. 13) 'become warm'.

The IE languages have no similar group of denominative verbs, but it is noteworthy that nominal *i*-stems sometimes alternate with *s*-stems, e.g. Gk. *κυδιάνειρα*, *κύδιστος* : *κύδος*; *καλλίδριξ*, *κάλλιστος* : *κάλλος*; Lat. *mūnificus* : *mūnus*.³² Possibly our verbs started with *s*-stem verbs beside *i*-stem adjectives. Another possibility is that the denominative suffix *es* started with derivatives in *s* from denominative verbs; the extension of the *s*-aorists to denominative verbs is familiar in Greek, and a similar development may have occurred in pre-Hittite.

Nasal Infix³³

324. Five verbs with causative value are formed with infixed *nen* as follows:

harnenk- (*har-ni-ik-zi* [31, 57], pret. 1 s. *har-ni-in-ku-un*, 3 pl. *har-ni-in-ki-ir*, infin. *har-ni-in-ku-wa-an-zi*) 'destroy' from *hark-* (*har-ak-zi*, pret. 3 pl. *har-ki-e-ir*) 'be destroyed'. The word may be connected with Lat. *frango* and Goth. *brikan* on the assumption that the IE *bh* came from words of similar meaning; cf. roots *bhreu-*, *bhres-*, *bhlād-*.³⁴

³¹ Götze, NBr. 32; Ehelolf, OLZ 36.3 fn. 2.

³² Bolling ap. Sturtevant, Lang. 8. 125 fn. 16.

³³ Götze, Hatt. 72; Friedrich, ZA NF 250, Vert. 131 fn. 3.

³⁴ Walde-Pokorny 2. 195 f., 206, 210. Bechtel suggests that the IE words may contain the prefix **bhe-* [283].

hunen- (*hu-u-ni-ik-zi*, midd. *hu-u-ni-ik-ta-ri*, *hu-ni-ik-ta-ri*, pret. *hu-u-ni-ik-ta-at*, part. *hu-u-ni-in-kán-za*, *hu-u-ni-kán-za*) 'cause to be bewitched'³⁵ from *hwek-*, *huk-* 'bewitch' : Skt. *vac-* 'speak'.

nenen- (*ni-ni-ik-zi*, 3 pl. *ni-ni-in-kán-zi*) 'raise' from *nenk-* (*ni-ik-zi*, 3 pl. *ni-in-kán-zi*) 'rise, be exalted, become intoxicated' : Gk. *ἐνεγκεῖν* 'carry'.

sarnenk- (*šar-ni-ik-zi*, 3 pl. *šar-ni-in-kán-zi*, *šar-ni-en-kán-zi*) 'restore, make restitution', implies a verb **sark-* or the like, which should mean 'be whole, uninjured' or 'be restored, become whole'. No such verb is citable, but we have an adjective *sarkus* which means 'powerful, prominent, illustrious' or the like.³⁶

*starnenk*³⁷ (*iš-tar-ni-ik-zi*, 2 s. *iš-tar-ni-ik-ši*, pret. 1 pl. *iš-tar-ni-in-ku-en*) 'injure, make ill' from *stark-* (*iš-tar-ak-zi*, pret. *iš-tar-ak-ta*) 'be ill'.

Like other stem-forming affixes of the Hittite verb, infixed *nen* goes through the entire conjugation, including the participle, the infinitive, the verbal noun, and the iterative-durative. Before endings beginning with consonants the infix produces groups of three consonants, and these can be written with cuneiform characters only if the third consonant is *w*; accordingly we find *iš-tar-ni-ik-zi* for *starnenkzi* but *iš-tar-ni-in-ku-en* for *starnenkwen*—the writing of the group *nk**w* amounts to proof that *n* was present in the other groups also. The infix is usually written *ni-in* or *ni-ik* but occasionally *ni-en*; the latter spelling, supported by etymological considerations, indicates that the vowel is *e*. All five stems end in Hittite *k*, which, however, corresponds to different IE sounds. *hunen-* and *hwek-* : Skt. *avocat*, Gk. *ἐπέε* 'spoke, said' have IE *kw*; *nenen-* and *nenk-* : Skt. *naśati* 'attains', Gk. *ἐνεγκεῖν* 'carry' have IE *k̑*; *harnenk-* and *hark-* may have IE *g*.

In spite of the differences in meaning, form, and use, there can scarcely be any doubt that the infix *nen* is connected with the IE infix *n(e)*.

³⁵ The word occurs in the Code §9 (p. 6 Hrozný): *taku antuhsas harsanset kwiski hunenkzi ... hunenkanz 3 ZU AZAG.UD tai (išk-ku LÚ.URU.LU SAG.DU.ZU ku-iš-ki hu-u-ni-ik-zi ... hu-u-ni-in-kán-za 3 ZU AZAG.UD da-a-i)*, 'if anyone causes a man's head to be bewitched ... the bewitched shall receive three half-shekels of silver'. In the Papanikri text (KBo. 5. 1. 1. 3, 44; 4. 39) this meaning fits equally well.

³⁶ Sommer, AU 91.

³⁷ The reason for interpreting initial *iš-tar-* as *star-* rather than as *istar-* or *estar-* is that this gives the word the same rhythmic structure as the other members of the group. Besides initial *is* or *es* would tend to be written with a pleonastic vowel [28].

Possibly the second nasal originated in *nenenk-* beside *nenk-*, where the infix may have been *ne*. On the causative meaning, see [331].

325. Here may be mentioned a small group of verbs whose stems end in *nk*. They remind one of nasal infix verbs like Lat. *iungo*, but, as far as their etymology can be traced, it seems better to consider the nasal a part of the root. They are *hamenk-*, *hamank-* (3 pl. *ha-mi-in-k[án-z]i*, pret. *ha-mi-ik-ta*, part. *ha-am-me-en-kán-za*, *ha-mi-in-kán*; pres. *ha-ma-an-ki*, 3 pl. *ha-ma-an-kán-zi*, pret. *ha-ma-ak-ta*) 'bind'; *henk-* (*hi-in-ga-zi*, *hi-ik-zi*, pret. *hi-en-ik-ta*) 'determine' : Gk. ἀνάγκη; *kunk-* (1 pl. *ku-un-ku-u-e-ni*, part. *ku-un-ga-an*) 'adorn'(?); *lenk-* (*li-ik-zi*, 3 pl. *li-in-kán-zi*) 'swear' : Gk. ἔλεγχος; *nenk-* (*ni-ik-zi*, 3 pl. *ni-in-kán-zi*) 'arise' : Gk. ἐνεγκεῖν; *tamenk-* (*ta-me-ik-zi*, pret. 3 pl. *da-me-in-kir*) of unknown meaning.³⁸

*nu*³⁹

326. A causative is formed with suffix *nu* from many verbs, including derivative verbs and denominatives. The suffix appears to be identical with IE *neu/u*, and the connection is made certain by three etymologies.

arnu- (*ar-nu-zi*, *ar-nu-uz-zi*, 3 pl. *ar-nu-an-zi*, *ar-nu-wa-an-zi*) 'bring' : Skt. *ṛnoti* 'moves, attains', Av. *ṛənaoiti* 'grants', Gk. ὀρνυμι (with analogical vocalism) 'cause to move', ἄρνυμαι 'win'.

-inu- 'cause to go' : Skt. *inoti* 'causes to move'. The Hittite verb occurs in two compounds. *huwenu-* (*hu-u-i-nu-zi*, 1 pl. *hu-i-nu-me-ni*, pret. *hu-u-i-nu-ut*, *hu-e-nu-ut*, imper. 2 s. *hu-u-i-nu-ut*, *hu-u-e-nu-ut*) 'cause to run, flee, march', < IH *ho-we-i-neu-* stands beside *huwai* 'runs, flees, marches' < IH *ho-we-ēi*. *zenu-* (pret. 3 pl. *zi-nu-e-ir*—KBo. 3. 46. 1. 19, iterat. *zi-e-nu-uš-ki-iz-zi*—KBo. 6. 5. 4. 12⁴⁰) 'cause to pass' beside *zai* 'passes' contains the prefix *ze* [287] and *-inu-*.

warnu- (*wa-ar-nu-zi*, *wa-ar-nu-uz-zi*, 3 pl. *wa-ar-nu-wa-an-zi*, *wa-ar-nu-an-zi*) 'cause to burn' : Skt. *ghṛnoti* 'shines, burns'.

327. Other verbs in which the radical vowel is weak, as regularly in IE, are: *asnu-* (*aš-nu-zi*, 3 pl. *aš-nu-an-zi*, *aš-nu-wa-an-zi*, part. *aš-nu-an*) 'cause to sit' beside *eszi*, *aszi*, *esa*, *esari* 'sits'; *laknu-* (pret. *la-ak-nu-ut*—KUB 5. 7. 1. 24; 14. 3. 4. 9) 'cause to lie'⁴¹ beside *salekzi*, of unknown meaning, *saleka* 'lies with'; *wahnu-* (*wa-aḥ'-nu-uz-zi*, 3 pl. *wa-aḥ'-nu-wa-an-zi*, *wa-aḥ'-nu-an-zi*) 'cause to turn' beside *weh-*, *wah-*

³⁸ Sommer, AU 252.

³⁹ Hrozný, SH 172 f.; Sommer, BoSt. 7. 40 fn. 1; Friedrich ZA NF 1. 15 f.

⁴⁰ *za-(a)-i-nu-ir* (KBo. 3. 6. 3. 67, KUB 1. 8. 4. 19) gets its diphthong by analogy.

⁴¹ Cf. Sommer, AU 170 f.

(ú-e-iḫ-zi, ú-iḫ-zi, 3 pl. wa-ḫa-an-zi) 'turn'; *watkunu-* (pret. *wa-at-ku-nu-ut*, 3 pl. *wa-at-ku-nu-e-ir*, *wa-at-ku-nu-ir*) 'drive out' beside *watku-* (*wa-at-ku-zi*) 'go down, leap'.⁴²

328. More frequently the suffix is appended to the verb stem in such a way that we have to assume analogical levelling or a totally new formation in Hittite times. From root verbs of the *mi*-conjugation we have *hwesnu-* (*ḫu-iš-nu-zi*) 'cause to live' beside *hweszi* 'lives' and *kwenu-* (pret. 1 s. *ku-e-nu-nu-un*—KBo. 4. 8. 2. 5) 'cause to kill' beside *kwenzi* 'strikes, kills'. From the primary thematic verb *lenke/a-* (imper. *li-in-ki*, pret. 1 pl. *li-en-ga-u-en*) beside *lenkzi* 'swear' comes *lenkanu-* (pret. 1 s. *li-in-ga-nu-nu-un*, 3 s. *li-in-ga-nu-ut*); just so *meyanu-* (*mi-ya-nu-zi*—KUB 10. 27. 1. 26) 'make rich' (or the like) is from the primary verb *meya-* beside *mai* [305, 361]. Primary verbs in *a* of the *hi*-conjugation show *kankanu-* (1 s. *kán-ga-nu-mi*—KUB 21. 27. 3. 42) 'cause to hang' from *kanka-*, *memanu-* (iterat. *me-ma-nu-uš-ki-iz-zi*—KUB 7. 53. 3. 14) 'cause to speak' from *mema-*, *wastanu-* (*wa-aš-ta-nu-uz-zi*, pret. 3 pl. *wa-aš-ta-nu-ir*) 'cause to sin' from *wasta-*. From a derivative verb we may cite *tekusanu-* (pret. 1 s. *te-ik-ku-uš-ša-nu-nu-un*, 3 s. *te-ik-ku-uš-ša-nu-ut*) 'show' from *tekuse/a-* 'show'. *zahiya-* (pret. 1 s. *za-aḫ-ḫi-ya-nu-un*, *MÊ-ya-nu-un*), whence *zahiyanu-* (pret. 1 s. *MÊ-ya-nu-nu-un*—KBo. 3. 4. 2. 60), and *karusiya-* (2 s. *ka-ru-uš-ši-ya-ši*, pret. 1 s. *ka-ru-uš-ši-ya-nu-un*), whence *karusiyanu-* (3 pl. *ka-ru-uš-ši-ya-nu-wa-an-zi*, *ka-ru-uš-ši-ya-nu-an-zi*) are either derivative verbs or denominatives. Certainly from denominatives are *tameshanu-* (pret. 1 s. *dam-me-eš-ḫa-nu-nu-un*—KBo. 4. 8. 2. 13) 'cause to punish' from *tamesha(e)-* (pret. *dam-mi-eš-ḫa-a-it*, *dam-me-iš-ḫa-a-it*) 'harm, punish' and *stantanu-* (pret. 1 s. *iš-ta-an-ta-nu-nu-un*, iterat. 2 pl. *iš-ta-an-ta-nu-uš-kat-te-ni*) 'keep back, neglect' from *stanta(e)-* (pret. *iš-ta-an-ta-it*, *iš-ta-an-da-a-it*).

329. In a few instances the suffix *nu* seems to be denominative, but we must reckon with the possibility of derivation from verbs that are still unknown. Peculiarly striking instances are *esharnu-* (3 pl. *iš-ḫar-nu-wa-an-zi*—KBo. 6. 34. 3. 47, part. *iš-ḫar-nu-wa-an-da*—KUB 9. 4. 3. 42) 'make bloody' beside *eshar* 'blood', *nuntarnu-* (2 s. *nu-un-tar-nu-si*, 2 pl. *nu-un-tar-nu-ut-te-e-ni*, *nu-un-tar-nu-ut-te-ni*) 'exert oneself' beside *nuntaras* (gen.) 'effort(?)',⁴³ *parkunu-* (*pár-ku-nu-uz-zi*, *pár-ku-nu-zi*) 'make clean' beside *parkus* 'clean', *tepnu-* (3 pl. *te-ip-nu-wa-an-zi*, pret. *te-ip-nu-ut*) 'make small, revile' beside *tepus* 'small'.

⁴² I assume that *wa* is the prefix [286], and that full grade of the root would be **teku-*.

⁴³ Friedrich, Vert. 1. 82 f.

330. In all instances so far mentioned the suffix *nu* is appended directly to a root or a stem. In half a dozen words, however, we appear to have a union vowel *a*, which no doubt comes from the rather numerous forms like *memanu*, *kankanu*-, *lenkanu*-, where it has an etymological justification. Possibly in all cases an actual stem with final *a* should be assumed, but for the present it seems better to recognize a union vowel in the following: *asanu*- (3 pl. *aš-ša-nu-wa-an-zi*, pret. 1 s. *aš-ša-nu-nu-un*, 3 s. *aš-ša-nu-ut*, inf. *aš-ša-nu-um-ma-an-zi*) beside *asnu*- 'cause to sit' from *es*-, *as*- 'set, sit', *asesanu*- (1 s. *a-ši-ša-nu-mi*, pret. 1 s. *a-še-ša-nu-nu-un*, 3 s. *a-še-ša-nu-ut*) 'cause to dwell, cause to be inhabited' from *ases*- 'beset, set, found', *harkanu*- (2 s. *ḥar-ga-nu-ši*, pret. 3 pl. *ḥar-ga-nu-ir*) 'destroy' beside *hark*- 'go to ruin', *hatkanu*- (*ḥa-at-ga-nu-zi*—KBo. 5. 13. 3. 12, *ḥa-at-ga-nu-uz-zi*—ib. 14) 'shut in, oppress' from *halk*- (*ḥa-at-ki*, 3 pl. *ḥa-at-kán-zi*) 'shut in, oppress'.

In these verbs some will prefer to see a non-phonetic or an anaptyctic vowel.

331. Except for a few cases in which the derivative verb seems to be equivalent to the primitive (*tekusanu* = *tekuse/a*-, *hatkanu* = *halk*-), the meaning of the suffix *nu*-, as of the infix *nen*-, is causative. In two of the three words that Hittite possesses in common with IE the latter gives evidence of causative meaning; Gk. *ᾠρνυμι* 'cause to move', Av. *ərənaoiti* 'grants', and Skt. *inoti* 'causes to move' are clearly causative. Kurylowicz⁴⁴ points out five nasal presents that are used transitively in the Rig Veda, while the corresponding intransitive force is expressed by middle forms without nasal suffix; three of them are *nā*- presents, which must have got causative value by confusion with the suffix *nu* [353]. Another Skt. causative is *dhinoti* 'nourishes' beside *dhayati* 'sucks'.

332. Owing to the change of IH *eu* to Hittite *u* [93b], all trace of ablaut in the suffix *nu* has been lost, except in the pres. 3 pl. and in the part. Such forms as *arnwanzi* and *arnwanz* must represent IH *rnwenti* and *rnwent*-, IH *rnew*- before a vowel would betray itself.

*ske/a*⁴⁵

333. Any verb whose meaning permits may form an iterative-durative with suffix *ske/a*. Such derivatives occur even from causative verbs in *nu*; e.g. *hwesnuske*- (*ḥu-iš-nu-uš-ki-iz-zi*, pret. *ḥu-iš-nu-uš-ki-e-it*) from *hwesnu*- 'cause to live', *lenkanuske*- (pret. *li-in-ga-nu-uš-ki-it*) from *lenkanu*- 'cause to swear'.

⁴⁴ RO 6. 201-4.

⁴⁵ Hrozný, SH 174-7; Sommer, BoSt. 4. 13 fn. 2, 10. 21 f.

334. Only two words in *ske/a* have certainly retained their inherited form.

arske- (*a-ar-aš-ki-iz-zi*, pret. *a-ar-aš-ki-it*) 'come' : Skt. *racchati* 'comes to, attains'.

uske- (*uš-ki-iz-zi*, 3 pl. *uš-kán-zi*) 'see' : Skt. *ucchati* 'shines'.

In *memeske-* (*me-mi-iš-ki-iz-zi*, *me-mi-eš-ki-iz-zi*, 3 pl. *me-mi-iš-kán-zi*, *me-mi-eš-kán-zi*) 'say' : Gk. *μυμῆσκω* and in *weske-* (*ú-i-iš-ki-iz-zi*, pret. *ú-e-eš-ki-nu-un*) 'come' : Skt. *gacchati*, Gk. *βάσκε* < IH *gwmsk-*, we see the widespread encroachment of the suffix form *eske/a* [337, 338].

335. Several other verbs have weak forms of the root that indicate high antiquity; namely, *akuske-* (*ak-ku-uš-ki-iz-zi*, 3 pl. *ak-ku-uš-kán-zi*) from *eku-*, *aku-* 'drink, give to drink', *azke-* (*az-zi-ik-ki-iz-zi*, 3 pl. *az-zi-ik-kán-zi*) from *et-*, *at-* 'eat', *huske-* (2 s. *hu-u-uš-ki-ši*, pret. *hu-uš-ki-it*) 'await' from *hwes-* 'live', *hwrzke-* (*hur-za-ki-iz-zi*, verbal noun *hu-u-wa-ar-za-ki-u-wa-ar*) from *hwrt-* 'curse' : Lat. *verbum*, *kukurske-* (3 pl. *ku-uk-kur-aš-kán-zi*—KBo. 6. 3. 4. 56, *ku-uk-ku-ur-e[š-kán-zi]*)—KBo. 6. 2. 4. 57)⁴⁶ 'cut off' beside *kwer-*, *kur-* 'cut off', *kwaske-* (pret. 1 s. *ku-wa-aš-ki-nu-un*, 3 s. *ku-wa-aš-ki-it*) from *kwen-*, *kun-* 'strike', *zke-* (*zi-ik-ki-iz-zi*, 3 pl. *zi-ik-kán-zi*) from *tai-* 'place'.

336. In several verbs the vowel *e* before the suffix *ske/a* is etymologically justified. *huweske-* (*hu-eš-ki-iz-zi*—KBo. 3. 34. 2. 23, 3 pl. *hu-u-eš-kán-zi*—KUB 25. 32. 2. 23) beside *huwai* 'runs, goes, marches' may come from IH *ho-we-i-sko/e-*, or it may have been formed on the analogy of the causative *huwenu-* [326] and of such plural forms as **huweweni*, **huweteni* < IH *ho-we-i-wes*, *ho-we-i-tene*. *haneske-* (2 s. *ha-an-ne-iš-ki-ši*—KUB 6. 45. 3. 17, pret. 1 s. *ha-an-ne-iš-ki-nu-un*—KUB 21. 19. 2. 6) stands beside the *a*-verb *hana-* (*ha-an-na-a-i*, 3 pl. *ha-an-na-an-zi*) 'litigate, decide a law-suit', but the original diphthongal stem appears in uncompounded *nai-* (*na-a-i*, 3 pl. *ne-ya-an-zi*) 'lead, turn, drive'; *haneske-* may therefore come from IH *ho-nei-sko/e-*. Similarly *peneske-* (*pí-en-ni-eš-ki-iz-zi*—KUB 1. 13. 4. 7, 42) beside *pena-* 'drive, lead with one' belongs ultimately with *nai-*.

337. Verbs of the second class of the *hi*-conjugation tend to form verbal nouns in *tar* (> *sar*) from a stem in *es*; e.g. *upesar* (*up-pí-eš-sar*) from *upa-* (1 s. *up-pa-aḫ-ḫi*) 'send' [160]. They also frequently make their pret. 3 s. and occasionally other preterit and imperative forms on a stem in *es*; e.g. *upest* (*up-pí-eš-ta*) from *upa-* [318]. Surely the consistent formation of iterative-duratives from the *a*-verbs by

⁴⁶ The equivalent *kukureske-* (*ku-uk-ku-ri-eš-ki-ir*—KBo. 3. 34. 1. 25; cf. ib. 1. 29 and 3. 38. 1. 5) shows the spread of suffix *eske/a*.

means of suffix *eske/a* instead of expected *aske/a* stands in some relation to these two tendencies, although I hesitate to analyze the suffix as *es-ske/a*.⁴⁷

Examples of the formation are: *areske-* (3 pl. [ar]-ri-iš-kán-zi—KUB 1. 13. 2. 49, pret. 1 s. ar-ri-eš-ki-nu-un—KBo. 4. 2. 4. 32) from *ara-* (ar-ra-i, 1 s. ar-ra-aḫ-ḫi, infin. ar-ru-ma-an-zi) 'wash'; *eseske-* (pret. 3 pl. e-eš-ši-iš-kir—KBo. 3. 36. 1. 15, e-še-eš-ki-ir—KUB 5. 22. 21) from *esa-* (1 s. e-eš-ša-aḫ-ḫi, 3 s. e-eš-ša-i, pret. e-eš-še-eš-ta) 'set, prepare'; *huleske-* (pret. 1 s. ḫu-ul-li-iš-ki-nu-un—KBo. 4. 4. 3. 60, supine ḫu-ul-li-iš-ki-u-wa-an—KBo. 3. 6. 2. 25) from *hula-* (ḫu-ul-la-a-i, 3 pl. ḫu-ul-la-an-zi) 'smite'; *kweneske-* (ku-en-ni-eš-ki-iz-zi—KUB 8. 50. 2. 11) from *kwen-* (1 pl. ku-en-nu-um-me-e-ni, 2 pl. kuennatteni,⁴⁸ 3 pl. ku-en-na-an-zi, pret. ku-in-ni-eš-ta) 'strike, kill'; *memeske-* (me-mi-iš-ki-iz-zi, me-mi-eš-ki-iz-zi, 3 pl. me-mi-iš-kán-zi, me-mi-eš-kán-zi) from *mema-* (me-ma-a-i, pret. me-mi-iš-ta) 'say'; *skaleske-*⁴⁹ (iš-kal-li-iš-ki-iz-zi—KBo. 3. 21. 1. 6) from *skala-* (iš-kal-la-i, iš-ga-la-i, midd. iš-kal-la-a-ri, verbal noun iš-kal-li-iš-šar) 'tear, maim'; *suneske-* (šu-[u]n-ni-eš-ki-iz-zi—KUB 12. 58. 4. 10, 3 pl. šu-un-ni-eš-kán-zi—KUB 25. 22. 3. 11) from *sun-* (šu-un-na-a-i, pret. šu-un-ni-iš-ta, imper. 2 pl. šu-un-ni-iš-tin) 'fill'; *tarneske-* (tar-ni-iš-ki-iz-zi, 1 pl. tar-ni-iš-ka-u-e-ni, pret. 3 pl. tar-ni-eš-kir) from *tarna-* (tar-na-a-i, pret. tar-ni-eš-ta, imper. 2 pl. tar-ni-iš-tin) 'put in'; *upeske-* (pret. 1 s. up-pi-eš-ki-nu-un, 3 pl. up-pi-iš-ki-ir) from *upa-* (up-pa-a-i, pret. up-pi-eš-ta, verbal noun up-pi-eš-šar) 'send'; *uteske-* (1 s. ú-ti-iš-ki-mi—KBo. 3. 41. 2. 7, pret. 3 pl. ú-te-eš-kir) from *uta-* (ú-da-i, 3 pl. ú-da-an-zi) 'bring'; *walhaneske-* (3 pl. wa-al-ḫa-an-ni-iš-kán-zi, GUL-an-ni-eš-kán-zi) from *walhana-* (wa-al-ḫa-an-na-i—KUB 7. 13. 1. 16; 24. 8. 1. 5) 'smite'; *weteske-* (pret. ú-e-te-eš-ki-it—KBo. 5. 6. 1. 3, 13) from *weta-* (pret. 1 s. ú-e-da-aḫ-ḫu-un, 1 pl. ú-e-du-me-en) 'build'. For *haneske-* and *peneske-* see [352].

338. Whatever started the spread of the suffix form *eske/a* it has gone far beyond the second class of the *hi*-conjugation, although it is not so frequent anywhere else. Verbs in *eske/a* are more than twice as numerous as all other derivatives in *ske/a* combined.

⁴⁷ Less satisfactory is the analysis *es-ke/a*, which I suggested in Lang. 3. 113. fn. 31.

⁴⁸ Cited without reference by Friedrich, AOF 6. 307.

⁴⁹ This transcription is preferred on account of the possible connection with the IE root *skel* 'cut' (Walde-Pokorny 2. 590-6). Furthermore an initial vowel would tend to be written double [28].

V. STEMS OF THE *hi*-CONJUGATION

339. The *hi*-conjugation corresponds in general to the IE perfect system,⁵⁰ but it includes a number of aorist forms, especially in the pret. 3 s., and it has been influenced by the *mi*-conjugation. It is distinguished from the *mi*-conjugation by a partially different set of endings [399-417]. Verbs of the *hi*-conjugation fall into three conjugation classes according to the stem final: (1) consonant stems, (2) *a*-stems, (3) diphthongal stems. The first two classes include both primary and derivative verbs, but the third class consists entirely of primary verbs.

1. Consonant Stems

Primary Verbs

340. All primary consonant stems of the *hi*-conjugation known to me have *a* in the radical syllable throughout the pres. sing., except *hatki* (*ha-at-ki*) 'closes', which probably consists of prefix *ha* and zero grade of the root (cf. Lat. *tego*). The correspondence of this *a* with *o* of the IE perfect singular active is obvious. Inherited verbs of this type include *ar-* (2 s. *a-ar-ti*, 3 s. *a-ri*) 'arrive' : Skt. *āra* 'he went', Gk. *ὄρωπα* 'I move'; *asas-* (1 s. *a-ša-aš-ḥi*, 2 s. *a-ša-aš-ti*, 3 s. *a-ša-a-ši*, *a-ša-ši*) 'beset, set, found' : Skt. *āste*, Gk. *ἵσται* 'sits'; *kank-* (*ga-an-ki*, verbal noun *kán-ku-wa-ar*) : Goth. *hāhan*, pret. *hathāh* 'hang'; *krap-* (*ka-ra-a-pti*, *ga-ra-pti*, *ka-a-ra-pti*) 'fressen' : Skt. *jagrābha* 'he seized'; *lahw-*, *lahu-* (1 s. *la-ḥu-uḥ-ḥi*, 3 s. *la-a-ḥu-i*, *la-a-ḥu-u-i*) 'pour' : Gk. *λόω*, *λέλουμαι* 'wash'; *sak-* (1 s. *ša-ag-ga-aḥ-ḥi*, 2 s. *ša-ak-ti*, *ša-a-ak-ti*, 3 s. *ša-ak-ki*) 'know' : Goth. *sah* 'saw'; *spar-* (1 s. *iš-pār-aḥ-ḥi*, *iš-pa-ar-ḥi*, 3 s. *iš-pa-a-ri*) : Gk. *σπείρω* 'spread'; *spant-* (1 s. *ši-pa-an-taḥ-ḥi*, *ši-pa-an-ta-aḥ-ḥi*, 3 s. *ši-pa-an-ti*, *ši-ip-pa-an-ti*) 'pour a libation' : Lat. *spopondī* 'I promised'; *wa-kar-* (*wa-aq-qa-a-ri*) 'be lacking' : Skt. *śṛṇāti* 'crushes'; *wak-* (*wa-a-ki*) 'bite' : Skt. *āśa* 'he ate'.

341. In a large majority of the stems the radical vowel is *a* in the plural as well as in the singular. In some cases *an* or *ar* in the plural may represent an IH zero grade, and *a* may always be interpreted as coming from IH *ə*; but it is equally possible to assume generalization of *o* of the singular in pre-Hittite.

342. Three verbs, *sak-* 'know', *ar-* 'arrive', and *krap-* 'devour', show *e* instead of *a* in the plural; e.g. first person: *sakhi* : *sekweni*; second

⁵⁰ This fact was recognized by R. J. Kellogg, *Some Indo-European Assonances in Hittite* 38 f., 40 f., and I have developed the idea in a number of papers; but its treatment here differs in many details from anything heretofore published.

person: *arti* : *erteni*; third person: *krapi* : *krepanzi*. There is a tendency toward leveling in both directions; but the distinction is well maintained except for the pres. 3 pl. and the pret. 3 s.; see the paradigm [458], and cf. below.

Hittite *e* must represent IH *e* or *ē*; but a full or lengthened grade vowel in the plural beside *o*-grade in the singular is strange. In fact it would be almost incredible if we did not have a clear record of just such an alternation in certain Germanic preterites. Whatever the history of Goth. *sah* 'saw' : *sēhvum* 'we saw' the alternation of singular *o*-grade with plural lengthened grade in Germanic is beyond dispute. To me it seems incredible that so remarkable a situation developed in two languages independently. I feel compelled to trace the Germanic and the Hittite combination of *o*-grade and lengthened grade in a single paradigm to a common origin in IH. All the more so since Goth. *sah* : *sēhvum* is the same word as Hittite *saki* : *sekweni*.⁵¹

343. Since the pret. 3 s. in final *s* belongs historically to the *s*-aorist [321], we should expect the lengthened grade of the radical vowel, and in fact *kreps* (*ka-ri-pa-aš*—KUB 5. 7. 1.34) is citable. More frequently the vowel of the other singular forms intrudes; *ars* (*a-ar-aš*), *saks* (*ša-ak-ki-iš*).⁵² When the *mi*-conjugation *t* appears in this person it is sometimes accompanied by the radical vowel *e*, which may also come from the *mi*-conjugation; *sekt* (*še-ik-ta*), *ert* (*ir-ta*). The ending of the pres. 3 pl. comes from the *mi*-conjugation [405], and the much greater frequency of radical *a* here than elsewhere in the plural may result from this fact. In several *mi*-conjugation verbs 3 s. *e* alternates with 3 pl. *a* (e.g. *eszi* 'is' : *asanzi* 'are'), and in others *a* is the vowel of both numbers (e.g. *wasezi* 'clothes' : *wasanzi*). If verbs of either type (i.e. root verbs with light bases, or thematic verbs with radical IH *ə*) were the immediate source of the *hi*-conjugation 3 pl. the vowel *a* is not strange.

344. A trace of the same vowel distribution is preserved by 3 pl. *hesanzi* (*hé-e-ša-an-zi*—KUB 21. 17. 3. 13) beside *hasanzi* from *hasi* (*ha-a-ši*) 'opens' and by pret. 3 pl. *eker* (*e-ki-ir*, *e-kir*) beside *aker* from *aki* 'dies'. Neither word has a known etymology, but if they come

⁵¹ Sommer's remark (Handbuch der Lat. Laut- und Formenlehre² 550) about Lat. perfects with lengthened grade is thus confirmed: 'Die Vergleichung der 1 pl. Perf. *uenimus* mit Got. *qēmum* 'wir kamen' ... deutet auf idg. Charakter dieses Typus; nur ist sicher, dass das Gotische mit seiner Verteilung ... eine ursprüngliche, noch nicht sicher gedeutete Differenz bewahrt hat, die im Lateinischen durch Verallgemeinerung des *ē* verwischt wurde.'

⁵² On the phonetic interpretation of these forms, see [320].

from light bases they may originally have belonged to the group here under discussion. From a heavy base, apparently, comes the reduplicated *asas-* 'beset, set, found', which makes 3 pl. *asesanzi* (*a-še-ša-an-zi*, *a-ši-ša-an-zi*), and pret. 3 pl. *aseser* (*a-še-šir*, *a-še-še-ir*, *a-še-e-še-ir*). Probably this verb fell under the influence of the *o/ē* verbs in pre-Hittite while the latter were more numerous than they are in our texts.

345. Some at least of the *hi*-conjugation consonant stems with *e* in the plural have *e* also in the participle, infinitive, supine, and verbal noun; e.g. *sekanz* (*še-ik-kán-za*), *asesantes* (*a-še-ša-an-te-eš*), *krepuanzi* (*ka-ri-pu-wa-an-zi*), *aseswanzi* (*a-še-šu-wa-an-zi*), *krepuan* (*ka-ri-pu-u-wa-an*), *aseswar* (*a-še-šu-u-wa-ar*).

Denominative Verbs in *ah*⁵³

346. The suffix *ah* forms from adjectives verbs of the *hi*-conjugation, meaning 'cause to be what the adjective denotes'. One such pair seems to have been inherited; Hittite *newas* (inst. *ne-e-u-it*) 'new' and *newah-* (pret. 1 s. *ne-wa-aḥ-ḥu-un*, 3 pl. *ne-wa-aḥ-ḥi-ir*) 'renew' correspond with Gk. *νέος* : *νεῆν*, Lat. *novus* : *novāre*, OHG *nīuwi* : *nīuwōn*. It therefore seems necessary to identify the Hittite suffix *ah* with the IE denominative suffix *ā* on the basis of IH *ah*. The IE suffix *āyo/e* is customarily analyzed *ā-yo/e* and connected genetically with the noun-stems in *ā*, and there is nothing in the Hittite evidence [310-314] to conflict with this. Since the primitives of Hittite verbs in *ah* are adjectives it is at first sight less satisfactory to assume for them a genesis from stems in *ā*; for it is unlikely that the alternation of *o*-stem and *ā*-stem in the adjective is as old as IH. Since the suffix *ā* formed collective and abstract nouns before it was drawn into the gender system, perhaps the verbs in *h* were originally based upon nouns in *ā* which were in turn derived from adjectives; if so the intermediate stage has been eliminated both in Hittite and in IE. Pre-IH *āh* > IH *ah* > IE *ā* (before a consonant) [103ab].

I suggest that in IH the suffix (*ā*)*yo/e* formed presents from noun and adjective stems, while the suffix *ah* formed perfects from adjective stems. In IE, after the loss of *h*, the two suffixes tended to be confused; but in Attic and some other Greek dialects a trace of the original distribution remains in the restriction of the suffix *ao* to the present stem and of the suffix *ā* to aorists, perfects, and verbal nouns and adjectives.

Examples of denominatives in *ah* beside adjectives are: *arawah-*

⁵³ Friedrich, ZA NF 1. 16 f.; Kurylowicz, Symb. Gramm. 102; Sturtevant, Lang. 7. 120-4.

(*a-ra-u-wa-aḥ-ḥi*) 'set free' from *arawas* 'free', *italawah-* (2 s. *i-da-la-wa-aḥ-ti*) 'do harm' from *italus* 'bad', *katerah-* (pret. *kat-te-ir-ra-aḥ-ta*—KUB 1. 1. 3. 20, 3 pl. *kat-te-ir-ra-aḥ-ḥi-ir*—KUB 1. 9. 3. 8) 'make inferior' from *kateras* 'inferior', *laziyah-* (3 pl. SIG₅-*aḥ-ḥa-an-zi*) 'give favorable omens' from *lazis* 'favorable', *marsah-* (part. *mar-ša-aḥ-ḥa-an*) 'make bad' from *marsas* 'bad', *nakiyah-* (part. *na-ak-ki-ya-aḥ-ḥa-an*—KUB 14. 8. 2. 25, midd. pret. [*na*]-*ak-ki-ya-aḥ-ta-at*—KBo. 4. 6. 1. 26) 'make heavy' from *nakis* 'heavy', *saneziyah-* (imper. 2 s. *ša-ne-iz-zi-ya-aḥ*) 'sich sättigen' from *sanezis* 'good, pleasant',⁵⁴ *saraziyah-* (pret. *ša-ra-a-az-zi-ya-aḥ-ta*) 'make higher' from *sarazis* 'higher, highest', *supiyah-* (*šu-up-pi-ya-aḥ-ḥi*) 'make clean' from *supis* 'clean', *tan petasah-* (pret. 3 pl. *ta-a-an pi-e-da-aš-ša-aḥ-ḥi-ir*—KUB 14. 1. 1. 65) 'make of second rank' from *tan petas* 'of second rank' (properly a genitival phrase), *tanatah-* (pret. 1 s. *dan-na-at-ta-aḥ-ḥu-un*) 'make empty' from *tanatas* 'empty'.

In several instances adjectives from which verbs in *ah* may be derived are not citable, but extensions of them in *anz* (participles of denominative verbs in *a[e]?*) are known. Thus *armah-* (3 pl. *ar-ma-aḥ-ḥa-an-zi*—KUB 17. 10. 1. 15, part. *ar-ma-aḥ-ḥa-an-ti*—KBo. 6. 26. 2. 33) 'impregnate' beside *armanz* 'pregnant',⁵⁵ *tutumiyah-* (imper. 3 pl. *du-ud-du-mi-ya-aḥ-ḥa-an-du*—KBo. 6. 34. 1. 20) 'deafen' beside *tutumiyanz* 'deaf'. In other cases there is no direct evidence that such an adjective ever existed, and it is not impossible that the suffix was sometimes used to make deverbatives.

347. The pres. 2 s. and 3 s. of derivatives in *ah* is usually of the *hi*-conjugation, and so is the pret. 3 s. very frequently. The pres. 1 s. always goes according to the *mi*-conjugation and the pres. and pret. 3 s. sometimes do the same. Other forms may be interpreted as belonging to either conjugation. Since the drift in Hittite is toward the *mi*-conjugation, we must conclude that the derivative verbs in *ah* were originally perfects. The shift to the *mi*-conjugation was facilitated by the fact that not only all plural forms but also the pret. 1 s. (e.g. *italawahun* < *italawah-hun*) were indifferent as to conjugation. In particular such a pair as *wekmi* : *wekun* must have tended to induce *italawahmi* beside *italawahun*. The fact that the *hi*-conjugation 1 s. **italawahi* was indistinguishable from the 3 s. probably helped its newer rival to victory.

⁵⁴ Ehelolf, OI. 36. 4 f.

⁵⁵ Hrozný, CH 66. 15, 68. 17.

Derivative Verbs in *h*

348. In *parh-* (*pár-ah-zi*, *pár-ha-zi*, *pár-ḥi-zi*) 'drive' beside *pars-* (pret. *pár-aš-ta*, 3 pl. *pár-še-ir*) 'flee' : Gk. *πείρω* 'pierce', *περάω* 'pass' *h* seems to be a suffix that makes the verb transitive. The transitive verbs from this root in IE (e.g. Skt. *piparti* 'carries across') may have lost *h*, but that is not a necessary assumption.

Similarly *walh-* (*wa-al-ah-zi*) 'strike, defeat, destroy' beside *akukalet* (inst.) 'water-pourer' : Skt. *galati* 'drips', Gk. *βάλλω* 'throw' contains suffix *h*, whether the Gk. word does or not.

I am inclined to see the same suffix in *sanh-* (*ša-an-ah-zi*, *ša-an-ha-zi*) 'peto' : Skt. *sanoti* 'acquires', *sanh-* (*ša-an-ha-zi*) 'cleanse', and *tarh-* (*tar-ah-zi*) 'conquer, be powerful, can', rather than to assume roots ending in two consonants.

All these verbs show 3 s. in *zi* as well as 1 s. in *mi* (as far as 1 s. is quotable), but they have 2 s. in *ti* as far as quotable, namely, *walhti* (GUL-*ah-ti*), *sanhti* (*ša-an-ah-ti*, *ša-an-ha-ti*, *ša-an-ha-at-ti*). Their radical vowel is that of the *hi*-conjugation [340], but in the case of *parh-* and *tarh-* *a* may equally well represent IH *e* [76]. A final reason for supposing that suffix *h* originally belonged to the *hi*-conjugation is the probability of its ultimate kinship with the denominative suffix *ah*.

2. Stems in *a*

349. IH perfects from stems in *ō* and *ā* are indistinguishable in Hittite. They have *a* < IH *ō* or *ā* in the singular and in the plural *a* < IH *a*, except that in the 1 pl. pre-IH *aw* appears as *um* [110]. In case of zero grade of root or suffix (cf. Skt. *dadmas* 'we give'), there is, of course, no final stem vowel at all; this happens frequently in pret. 3 pl. and occasionally elsewhere; e.g. *taer* (*da-a-ir*) 'they took', but *memer* (*me-mi-ir*, *me-mi-e-ir*) 'they said'.

Primary Verbs

350. Hittite inherited at least one *hi*-conjugation verb with final radical *ō*, namely *ta-* (1 s. *da-ah-ḥi*, 2 s. *da-at-ti*, 3 s. *da-a-i*, 1 pl. *tum-me-ni*, 2 pl. *da-at-te-ni*, 3 pl. *da-an-zi*) 'take' : Skt. *dadau* 'gave', Gk. *δέδωκα* 'I have given'. It occurs also in the compounds *peta-* (1 s. *pí-e-da-ah-ḥi*, 3 s. *pí-e-da-a-i*) 'take with one' and *uta-* (1 s. *ú-da-ah-ḥi*, 3 s. *ú-da-i*, *ú-da-a-i*) 'bring'.

351. From a root in final *ā* we have (reduplicated) *mema-* (1 s. *me-ma-ah-ḥi*, 2 s. *me-ma-at-ti*, 3 s. *me-ma-i*, 3 pl. *me-ma-an-zi*) 'say' : Gk. *μémνημαι* 'I remember'. *mala-* or *mla-* (*ma-al-la-i*, 3 pl. *ma-al-la-an-zi*)

'grind' goes with Lat. *molo* 'grind', etc., and contains the root form of Skt. *mlāti*, *mlāyati* 'relaxes'. *mima-* (*mi-im-ma-i*, pret. *mi-im-ma-aš*) 'refuse' may come from IH *mimnā* : Arm. *mnam* 'remain, await', Gk. *μεμῆνηκα* 'I have remained'. *suha-* (*šu-uḥ-ḥa-i*, *šu-uḥ-ḥa-a-i*, pret. 1 s. *šu-uḥ-ḥa-aḥ-ḥu-un*) 'sprinkle' is to be connected with Gk. *ῥεῖ* 'rains'; and *ῥερός* 'rain', if from IH *suhə-tos*, suggests a dissyllabic heavy base.

352. Forms of this class often alternate with those of one of the other classes of the *hi*-conjugation in such a way that transfer to the second class (i.e. *a*-class) is certain or probable. Thus beside third class *nai*- 'lead, turn, drive' we have the compound verbs *pena-* (1 s. *pí-en-na-aḥ-ḥi*, 3 pl. *pí-en-na-an-zi*), *una-* (3 pl. *u-un-na-an-zi*, pret. *u-un-ni-eš-ta*, 3 pl. *u-un-nu-um-me-en*). Beside first class *kanki* (*ga-an-ki*) 'hangs' we have *kankai* (*ga-an-ga-i*—KUB 7. 60. 2. 6), 1 s. *kankahi* (*ga-an-ga-aḥ-ḥi*—KUB 9. 31. 1. 5, *kán-ga-aḥ-ḥi*—VBoT 24. 3. 22), and causative *kankanu-* (*kán-ga-nu-mi*); since IE has only roots *kenk-* (Lat. *cunctor*, Skt. *śaṅkate*) and *knkē(i)-* (Goth. *hāha*, pret. *hāhaida*) it is necessary to regard the Hittite stem *kanka-* as metaplastic. Similar, no doubt, are *ara-* (1 s. *ar-ra-aḥ-ḥi*, 3 s. *ar-ra-i*, inf. *ar-ru-ma-an-zi*) beside far more frequent *ar-* (*a-ar-ri*) 'wash', *lahwa-* (*la-a-ḥu-wa-i*, *la-ḥu-u-wa-i*, imper. 2 pl. *la-a-aḥ-ḥu-wa-tin*) beside *lahw-*, *lahu-* (1 s. *la-ḥu-uḥ-ḥi*, 3 s. *la-a-ḥu-i*) 'pour', *malta-* (*ma-al-ta-i*, pret. 1 s. *ma-a-al-taḥ-ḥu-un*, 3 s. *ma-al-ta-aš*) beside *malt-* (*ma-al-ti*, *ma-al-di*, verbal noun *ma-al-du-wa-ar*) 'recite'.

For *weta-* (*ú-e-da-aḥ-ḥi*, pret. *ú-e-da-aš*) beside *wete-* 'build', see [302].

Derivative Verbs in *na*⁵⁶

353. The suffix *na* forms intensive verbs of the second class of the *hi*-conjugation. When the suffix is appended directly to a root, as no doubt it always was originally, the latter regularly has zero grade or reduced grade. Extensions in *iya* and in *eske* are frequent.

In spite of differences in conjugation and in meaning the Hittite suffix *na* must be identified with the IE suffix *nā*. The well-known confusion between the suffixes *nā* and *neu* in IE and especially in Aryan resulted from identical form in the 1 pl., where verbs of both types had IE *ume-* from pre-IH *owe* and *uwe* respectively [110]. This confusion led in the historical IE languages to a nearly complete break-down of the semantic distinction between the two categories. Even in primitive IE it had induced a transfer of the *nā*-verbs from the perfect system to the present.

⁵⁶ Sommer, BoSt. 10. 22; Götze, Madd. 129 f.; Sturtevant, Lang. 7. 167–71.

354. Hittite inherited *tarna-* (1 s. *tar-na-aḥ-ḥi*, 2 s. *tar-na-at-ti*, 3 s. *tar-na-i*, *tar-na-a-i*) 'put in' < IH *tr-nā-* : Gk. *τερπαίω* 'pierce' < IH *te-tr-nyo/e-* beside Hittite iterative-durative *tarsk-* < IH *tr-sko/e-* and Gk. *τείλω*; *sunā-* (1 s. *šu-un-na-aḥ-ḥi*, 3 s. *šu-un-na-i*, *šu-un-na-a-i*) 'fill' : Skt. *sunoti*, Av. *hunaoiti* 'presses out' beside Hittite *su-* (midd. pret. *šu-ut-ta-ti*, imper. 3 s. *šu-ut-ta-ru*, part. *šu-u-wa-an-za*) 'press out, fill'; *yana-* (*i-ya-an-na-i*, pret. *i-ya-an-ni-eš*, sup. *i-ya-an-ni-wa-an*) 'go' < IH *yānā-* : Lat. *prōdīnunt*, *redīnunt*, *obīnunt* 'they go' < IH *in-*; *petana-* (pret. *be-da-an-ni-iš*—KBo. 3. 13. 2. 12, sup. *be-da-a-an-ni-wa-an*—KUB 14. 1. 1. 74) 'take with one' < IH *bhe-dā-nā* : Lat. *danunt* 'they give' < IH *dā-n-*.

Equally primitive in form is *twarna-* (imper. 3 s. *du-wa-ar-na-a-ú⁵⁷*) : Gk. *θραύω* 'break up', Lat. *frūstum* 'fragment', but there is no trace of this verb with suffix *nā* in IE.

kwenā- (1 pl. *ku-en-nu-um-me-e-ni*, 3 pl. *ku-en-na-an-zi*, pret. 3 pl. *ku-en-nir*, imper. 2 s. *ku-en-ni*, infin. *ku-en-nu-um-ma-an-zi*, iterative-durative *ku-en-ni-eš-ki-iz-zi*, extension in *iya ku-en-ni-ya-an-za*) 'strike, slay' beside *kwask-* < IH *kwnsk*, gets *e* from the simplex *kwen-*.

355. Elsewhere in Hittite, as far as I know, *na* is a secondary suffix; e.g. *parsiyana-* (*pār-ši-ya-an-na-a-i*, *pār-ši-ya-an-na-i*, 3 pl. *pār-ši-ya-an-na-an-zi*) 'breaks' from *parsiya-* 'break'; *parhanai* (*pār-ḥa-an-na-i*) 'drives hard, banishes' from *parh-*, *parha-* 'drive';⁵⁸ *walhaneske-* (3 pl. *wa-al-ḥa-an-ni-iš-kán-zi*), *walhaniya-* (3 pl. *wa-al-ḥa-an-ni-ya-an-[zi]*) from *walh-* 'strike'; *lahiyaneske-* (1 pl. *la-aḥ-ḥi-ya-an-ni-iš-ga-u-e-ni*) from *lahiya-* 'make a campaign'.

356. In IE the suffix *nā* appears sometimes in reduced grade (Gk. *δάμναμεν*) and sometimes in zero grade (Av. *hvanmahī* 'we incite' beside *hunāiti*). Skt. shows in the plural active and the middle an anomalous *nā* (*strñīmas* 'we strew' beside *strñāti*). Hittite usually shows reduced grade; e.g. 1 pl. *tarnumeni* < IH *trnumes* < pre-IH *trnawes*, pret. 2 pl. *tarnaten* < IH *trnāte*. Sometimes we meet zero grade forms, as pret. 1 pl. *tarnawen* (*tar-nu-en*—KBo. 3. 60. 3. 7) beside *tarnumen*, and regularly in pret. 3 pl. (e.g. *tar-nir*, *tar-ni-ir*).

The Skt. reduced grade *nā* implies full grade *nai* < IH *nāzi*, and this is what we find in the Hittite 3 s. *tarnai*. On this ending, see [364].

357. The suffix form *ne* in the supines *yanewan* (*i-ya-an-ni-wa-an*—KUB 14. 1. 1. 74) and *petanewan* (*be-da-a-an-ni-wa-an*—ib.) is due to the

⁵⁷ The other forms of the word either must or may be interpreted as thematic.

⁵⁸ Gk. *πέρνημι* 'export (captives) for sale' is a primary derivative, and Hittite may have inherited **parna-*, which was then contaminated with *parh(a)-*.

prevalence of *e* (written *i*) before suffix *wan* in the *ske*-verbs, to which the supine chiefly belongs [161e].

Derivative Verbs in *sa*⁵⁹

358. Several verbs, some of them fairly common, belonging to the second class of the *hi*-conjugation contain a suffix *sa*. For this also one may surmise intensive value. The combination of *s* with an original long vowel suggests an IE aorist subjunctive of the type of Lat. *essēs* and *regerēs*, and if such a connection should be assumed we should perhaps infer IH *sō* as the original form. I suspect, however, that Hittite *sa* is an isolated survival of a suffix that has been completely lost in IE.

The suffix appears in *esa-* (1 s. *e-eš-ša-aḫ-ḫi*, 2 s. *e-eš-ša-at-ti*, *iš-ša-at-ti*, 3 s. *e-eš-ša-i*, *e-eš-ša-a-i*, *iš-ša-i*) from *es* 'set, sit'; *eza-* (*e-iz-za-a-i*, imper. 2 pl. *e-iz-za-at-tin*, 3 pl. *e-iz-za-an-du*⁶⁰) from *et* 'eat'; *halza-* (2 s. *ḫal-zi-iš-ša-at-ti*, 3 s. *ḫal-zi-iš-ša-i*, *ḫal-zi-ša-i*, 3 pl. *ḫal-zi-iš-ša-an-zi*, pret. *ḫal-zi-eš-še-eš-ta*) from *halzai-* 'call, invoke'; *isparza-* or *sparza-* (pret. 1 s. *iš-pār-za-aḫ-ḫu-un*, 3 pl. *iš-pār-zi-ir*, part. *iš-pār-za-an*) from *ispart-* or *spart-* 'escape, arise'; *sesa-* (2 s. *ši-iš-<ša>at-ti*—KUB 1. 16. 3. 58) from *sai-*, *siya-* 'press down, put, place';⁶¹ *waresa-* (2 s. *wa-ar-ri-iš-ša-at-ti*, *wa-ar-ri-eš-ša-at-ti*, 3 pl. *wa-ar-ri-iš-ša-an-zi*, imper. 2 s. *wa-ar-ri-iš-ša*, *wa-ar-ri-eš-ša*) from *wara(e)-* 'protect'; *weza-* (*ú-iz-za-i*—KBo. 5. 4. 2. 41) from *weta-* 'bring'.⁶²

3. Diphthongal Stems

359. Something over a dozen verbs of the *hi*-conjugation, some of which are very common, have stems ending in a diphthong. All of them are primary verbs. The diphthongs concerned are *ai* < IH *ēi* and, in a single verb, *au* < IH *āu*.⁶³ Several of these verbs are from heavy bases, but others are from light bases, and so their stems must contain lengthened grade.

360. The following three stems come from heavy bases:

šai- (*iš-ḫa-a-i*, pret. 1 s. *iš-ḫi-iḫ-ḫu-un*) 'bind, levy upon, fix (a

⁵⁹ Götze, Madd. 105; Sturtevant, Lang. 7. 171 f.

⁶⁰ I can do nothing with *e-iz-za-az-za* (KUB 20. 92.6. 8) where an imper. 2 s. is demanded by the context.

⁶¹ Cf. Götze, NBr. 78 and fn. 3.

⁶² Cf. Friedrich, Vert. 2. 216.

⁶³ Probably *maus-* 'fall' should be included, but I can quote no forms without the *s*-extension; cf. [463].

penalty') : Skt. *syati*, *sināti*, *sinoti* 'bind', perf. *siṣāya*, aor. *asāt*, Av. *hā(y)*- 'bind', perf. *hišāyā*. The reduplicated *sesha*- (1 s. *še-eš-ḥa-aḥ-ḥi*, 3 s. *še-eš-ḥa-a-i*, 3 pl. *še-eš-ḥa-an-zi*) 'assign, order, direct' has been transferred to the second class of the *hi*-conjugation [352].

spai- (imper. 2 s. *iš-pa-a-i*—KBo. 4. 6. 1. 9) beside pres. 3 pl. *spiyanzi* (*iš-pi-ya-an-zi*), etc., 'sate oneself' : Skt. *sphāyati* 'fatten', part. *sphītas*, Lith. *spėjū*, *spėti* 'have leisure for', ChSl. *spěja*, *spěti* 'succeed'.

tai- (2 s. *da-it-ti*, 3 s. *da-a-i*, pret. 3 s. *da-a-iš*, 3 pl. *da-a-ir*, imper. 2 s. *da-a-i*) 'set, place' : Skt. pres. midd. *dhāyate*, aor. *adhītām* (RV), *adhī-mahi*, *dhīmahi*, *dhīmahe* (RV), *dhaithe* (RV), aor. pass. *adhāyi*, *dhāyi*, Lett. *dēju*, *dēt* 'lay eggs', *dēju*, *dēt* 'solder together', ChSl. *děja*, 'lay', OCzech. *děju* 'do, make'.

361. From light bases ending in *ei* we have:

-ai- 'go, cause to go', citable in compounds: *apai* (*ap-pa-a-i*, *a-ap-pa-a-i*) 'is finished' beside 3 pl. *apiyanzi* (*ap-pi-ya-an-zi*); *huwai*- (*ḥu-u-wa-a-i*, *ḥu-wa-a-i*, pret. *ḥu-u-wa-iš*, *ḥu-wa-iš*, 3 pl. *ḥu-u-wa-a-ir*) 'march'; *pai*- (2 s. *pa-it-ti*, 3 s. *pa-a-i*, pret. 2 s. *pa-it-ta*, 3 s. *pa-iš*, imper. 2 s. *pa-a-i*) 'give'; *prai*- (*pa-ra-a-i*, pret. *pa-ra-iš*) 'blow, send forth'(?). A connection with IE *ei*- 'go' and especially with the Skt. perf. *iyāya* and the Lat. perfect *ii* (OLat. *-ieit*) is certain.

arai- (*a-ra-a-i*, pret. *a-ra-a-iš*, *a-ra-iš*) 'rise, rebel' : base *erei*-, Skt. *rīyate* 'be dissolved, flow', Arm. *ari* 'rise', Gk. *ōpī'vw* 'stir, raise', Lat. *orior* 'arise'.

mai- (*ma-a-i*—KBo. 3. 7. 1. 7, KUB 17. 10. 1. 14) 'be ripe, prosper' beside part. *meyanz*, midd. *meyari* : Skt. *mayas* 'delight', Lat. *mītis* 'mild' [305].

nai- (2 s. *na-it-ti*, *na-a-i*, pret. *na-a-iš*, 3 pl. *na-a-ir*, imper. *na-a-i*) 'lead, turn, drive' : Skt. *nināya* 'he led', *nayati* 'he leads'. We have also reduplicated *nanai*- (*na-an-na-i*).

362. From the ablaut base *awe*-⁶⁴ we have *au*- (2 s. *a-ut-ti*, 1 pl. *a-ū-um-me-ni*, 2 pl. *a-ut-te-ni*, pret. *a-uš-ta*, 1 pl. *a-ū-me-en*, 3 pl. *a-ū-e-ir*, imper. 2 s. *a-ú*) 'see' : Hom. *ḥ́ws*, Lat. *aurōra*, Skt. *uṣās* 'dawn', *ucchati* 'shines'.

363. Beside the usual stem final *ai* or *au* these verbs show *e* or *u* before *hi* and *hun* of 1 s.; namely, *shehun* (*iš-ḥi-iḥ-ḥu-un*); *tehi* (*te-iḥ-ḥi*), *tehun* (*te-iḥ-ḥu-un*); *pehi* (*pi-iḥ-ḥi*), *pehun* (*pi-iḥ-ḥu-un*, *pi-e-iḥ-ḥu-un*); *nehi* (*ne-iḥ-ḥi*), *nehun* (*ne-iḥ-ḥu-un*, *ne-ḥu-un*); *uhi* (*u-uḥ-ḥi-i*), *uhun* (*u-uḥ-ḥu-un*). These forms are due to the pre-IH shortening of long

⁶⁴ *awes*- In Walde-Pokorny 1. 26, since IE never lacks the *s*.

diphthongs before *h* [103a]; they come from IH 1 s. *dheihī*, etc. beside 3 s. *dhēi*, etc.

364. It is evident from the Hittite material itself that the 3 s. *tai*, etc., consists of the bare stem, and that the 3 s. of the *a*-verbs (second class) must have been taken from these diphthongal verbs. For example, *tai* 'takes' beside 2 s. *tati* is less primitive than *tai* 'places' beside 2 s. *taiti*.

365. Skt. has three formations that must be connected with our Hittite verbs. The first is clearly indicated by the pairs *nai* 'leads, turns, drives' : Skt. *nināya* and *-ai* 'goes' : Skt. *iyāya*, whose validity is proven by the alternation of Skt. 1 s. *ninaya*, *iyaya* with 3 s. *nināya*, *iyāya* parallel with Hittite 1 s. *nehi*, *pehi* beside 3 s. *nai*, *pai*.

366. The corresponding formation from roots in final *eu* is common in Skt., e.g. *susrava* : *susrāva* 'flowed'; but in Hittite it is represented only by *au*- 'see', which makes 1 s. *uhi*, *uhun* as expected, although its 3 s. pres. comes from the *s*-stem, namely *auszi* (*a-uš-zi*). That Hittite formerly had other verbs of this type might be taken for granted in any case, but we seem to have specific evidence in the anomalous verb *la*- 'loose, unharness', which makes 2 s. *lasi* (*la-a-ši*), 3 s. *lai* (*la-a-i*—KUB 1. 13. 1. 6), 3 pl. *lanzi* (*la-a-an-zi*), pret. 1 s. *lawun* (*la-a-ú-un*), 1 pl. *lawen* (*la-a-u-en*, *la-a-u-e-en*). It cannot be doubted that we have here the IE root *leu-* of Gk. *λῡω* 'loose', and so I venture to suggest that the most primitive of all the Hittite forms is pret. 1 s. *lawun*; and if this is true the one *hi*-conjugation form *lai* must originally have been **lau*. We thus seem to have a spread of Hittite *ai* at the expense of *au* or possibly of IH *ēi* at the expense of *ēu*,⁶⁵ cf. [192].

367. The third Skt. formation to be compared with diphthongal stems of the Hittite *hi*-conjugation is suggested by the pair *tai* 'places' : Skt. *dadhau* 'he placed'. The Skt. ending *au* is in general confined to heavy bases with final *ā*, while diphthongal stems make their perf. 3 s. in the manner illustrated in the last paragraphs. The well known variation between long diphthongs and long monophthongs would, however, easily account for a spread of *au* to perfects where we might expect *āya*. We have already [83] adduced evidence from Hittite and IE that a root *dhēi* existed before and beside *dhē* 'place'; hence Hittite *tai* is more archaic in vocalism than Skt. *dadharu*. Within Skt. itself we find a shift from perf. *siṣāya* (RV) : Hittite *shai* 'binds' to classical Skt. *sasau*. Perhaps we may recognize a parallel instance in *mimāya* (RV) 'he diminished' beside *mamau* (cited by the grammarians).

⁶⁵ The stem *la-* of *lasi*, *lanzi*, *lawen* must come from a reinterpretation of 1 pl. *lumeni* < pre-IH *lu-we-* [110].

368. Outside Indo-Iranian we have the Lat. perfects in *v* (e.g. *nōvit* : Skt. *jajñau*) and the OE stems in *wan* beside OHG *jan* (e.g. OE *sāwan* 'sow' : OHG *sājan*).⁶⁶ For our present purpose these forms are chiefly important (1) as proving an extensive parallelism of stems in *ēw* and *ēy*, and (2) as indicating an IE extension of third singulars of the type of Skt. *nināya* and *susrāva* at the expense of the type *jajñau*.

369. A possible interpretation of the evidence is this. Pre-IH heavy bases ending in a vowel or diphthong had full grade in the perf. s. and light bases ending in a diphthong had lengthened grade. None of these verbs had an ending in the 3 s.; we may illustrate with pre-IH *dō* : Hittite *tai* 'takes', Skt. *dadau*; pre-IH *dhēi* : Hittite *tai* 'places', Skt. *dadhau*; pre-IH *nēi* : Hittite *nai*, Skt. *nināya*. Since long diphthongs alternated with long monophthongs there was a tendency to interchange the types pre-IH *dō* and *dhēi*, and by IH times the diphthongal finals were usual in the 3 s. (not universal, as witness Vedic *paprā* beside *paprau*, etc.). In pre-IH, roots with *u*-diphthongs as well as with *i*-diphthongs influenced the heavy bases with final monophthongs, and so IH had both final *āⁱ* and *ā^u*, e.g. IH *dōi* and *dōu*. Hittite generalized the former, no doubt as a result of the almost total loss of diphthongal perfects with final *ā^u*. In pre-IE perfect stems with final diphthongs got the 3 s. ending *e* from the consonant stems; e.g. Skt. *nināya*, *susrāva*.⁶⁷ Skt. has preserved this system without further change except the generalization of the ending *au* at the expense of *ai* in the monophthongal heavy bases. Other IE languages that preserved the ending *ā^u* or *āⁱ* extended it by the ending *e* (e.g. Lat. *nōvit* < **gnōwe*).

370. Although several verbs of the third class of the *hi*-conjugation are very common they are all largely supplemented by forms that did not originally belong to the perfect system at all. To be sure all three classes of the *hi*-conjugation show more or less suppletion; e.g. 3 pl. in *anzi* [405], pret. 3 s. in *s* or *st* [409, 410]. In the third class, however, this goes so far that the diphthongal stem without extension in *s* is common in only seven forms, which may be illustrated from *tai*- 'place' as follows: 1 s. *tehi* (*te-iḥ-ḥi*) < pre-IH *dhēihi* [103a, 400, 401], 2 s. *taiti* (*da-it-ti*, *ta-it-ti*) < IH *dhēitha* [402], 3 s. *tai* (*da-a-i*) < IH *dhēi* [404], pret. 1 s. *tehun* (*te-eḥ-ḥu-un*) [407], pret. 3 pl. *taer* (*da-a-ir*) by analogy with the second class [412], imper. 2 s. *tai* (*da-a-i*, *da-i*) < IH *dhēi*, 3 s.

⁶⁶ See especially Hirt, IF 35. 142-7; Idg. Gramm. 4. 268 f.

⁶⁷ The reason why the same thing did not happen to the type IH *dōu* was that the diphthong was confined to the 3 s., while the change of IH *nēi* to IE *ninēye* was supported by the existence of IH *nēitha*; IH *sok-tha* : *soke* = *nēi-tha* : *nēy-e*.

tau (*da-a-ú*) < IH *dhēyu* (if the form is old). The stem *au-* 'see' is citable in only eight forms that show the diphthong or *uh* < *āuh* [103a].

VI. THE MEDIO-PASSIVE⁶⁸

371. Hittite has a medio-passive, which has the same uses as the Gk. middle voice. It most frequently represents the subject as acting upon or in respect to himself, but it frequently has a passive force and sometimes is indistinguishable in meaning from the active.

372. The medio-passive is marked by its peculiar personal endings, for which see [418-434].

373. In general the medio-passive is formed from the same stem as the active, but some peculiarities in the use of the thematic vowel require notice.

374. For the compound passive, see [438].

375. Thematic verbs sometimes show *a* instead of *e* in the 3 s. of both tenses and both moods, although the active verb scarcely shows *a* at all in these places [296]. From denominatives in *a(e)* we have middle *šu-wa-at-ta-ri* (KUB 13. 2. 3. 24) and *šu-wa-ru* (KUB 21. 38. 1. 3). Since the sign *ya* may be read *ye* [43], the vowel of the 3 s. of *ya*-verbs is usually indeterminate, but *ne-ya-ri* and *ne-i-ya* 'is led, turned' must be read *neyari* and *neya* on account of equivalent *ne-e-a-ri* and also because **neyeri* would become **neri* (cf. the loss of **neyeti* > **nezi* [107]). The midd. 3 s. of verbs in *ske/a* is usually written with the sign *kat*, *kit*; but, on account of occasional spellings like *ak-ki-iš-ki-it-ta-ri* and the lack of spellings with *ka-at*, we must interpret *a-la-ri-eš-kit-ta-ri* as *alaresketari*, etc. For the spread of *e* at the expense of *a* in these verbs, see [296].

376. This tendency of thematic verbs to use *a* in the midd. 3 s. must stand in some relation to the frequent addition of *a* to consonant stems in the 3 s. and occasionally in the 2 s. The following are consonant stems in their other forms, both active and middle, except that 3 pl. in *anzi*, *anta*, etc. is indeterminate: *e-pa-a-ri*, *ap-pa-at-ta-at* from *ep-* 'take'; *e-ša-ri*, *e-ša*, *e-ša-at*, *e-ša-ti*, *e-ša-ru* from *es-* 'sit'; *hi-in-kat-ta* from *henk-* 'determine'; *ki-ša-ri*, *ki-(i-)ša*, *ki-ša-at*, *ki-ša-ti*, *ki-ša-ru* from *kes-* 'become'; *la-ga-a-ri*, *la-ga-a-ru* from *lak-* 'cause to fall'; *mar-ka-at-ta-ri* from *mark-* 'cut up'; *pa-aḫ-ša-ri* from *pahs-* 'protect'; *ša-li-(i-)ga* 'lie with' from *salek-*, of unknown meaning; *tuḫ-uḫ-ša*, *tuḫ-ša-ri*

⁶⁸ Friedrich, Vert. 1. 26 f.

from *tuhs-* 'take away'; *ú-e-ḫa-at-ta-ri*, *ú-e-ḫa-at-ta*, *ú-e-ḫa-at-ta-at*, *ú-e-ḫa-at-ta-ru* from *weh-* 'turn'.⁶⁹

377. If *a* appended to a verb stem before the addition of personal endings corresponds to anything in IE it is probably the thematic vowel *o*, and so I have listed *kesari* with instances of the thematic *s*-aorist [317]. From the consistent use of *a* < IH *o* rather than *e* in the 3 s. of consonant stems and from the occasional use of *a* in the 3 s. as well as in the 2 s. and 2 pl. of verbs that are thematic in other forms than the 3 s., I infer that *o* was the original thematic vowel throughout the middle. Where *e* occurs it is due to the analogy of the active verb, and the same analogy has prevailed in the IE languages that distinguish between *e* and *o*, except in Goth., where we have midd. 1 s. and 3 s. *nimada* and 2 s. *nimaza*.

VII. MOOD

378. Hittite has two moods, indicative and imperative. The latter is used to express positive commands, and, in the first person, the determination by the speaker of his own course of action. The indicative is used in all other situations. The present indicative with the particle *le* (*li-e*) expresses a negative command;⁷⁰ and without the particle it is sometimes nearly equivalent to the imperative, as for example in laws.

The two moods are distinguished by their personal endings, for which see [382-434].

VIII. TENSE

379. Hittite has two tenses, present and preterit. The preterit regularly expresses the past and the present is normally used for all other time relations. The historical present occurs occasionally, and Sommer⁷¹ notices two probable occurrences of the preterit instead of the usual present to express the future perfect idea.

The present of the *mi*-conjugation corresponds in general to the IE present, although it includes stems that in IE belong to the aorist. The present of the *hi*-conjugation corresponds in general to the IE

⁶⁹ Petersen, AJP 53. 206, explains the ending *a* as due to analogy; *yatari* : *yata* = *esari* : *esa*; but he leaves out of account the surprising "thematic" 3 s. with final *ti*, *ta*, or *t* from verbs that are non-thematic in all other forms.

⁷⁰ The occasional use of *le* with the imperative (e.g. KUB 1. 16. 2.55, 60) is not surprising.

⁷¹ AU 163.

perfect, but with considerable influence from forms that in IE grammar are called present or aorist. The preterit of the *mi*-conjugation corresponds in general with the IE imperfect, but its 3 pl. is from the IH perfect. The preterit of the *hi*-conjugation has no connection with the IE pluperfect; it is a composite of perfect forms, forms that in IE grammar are called aorists, and new creations.

The tenses are distinguished by their personal endings, on which see [382-434].

IX. NUMBER

380. The Hittite verb has two numbers only. A singular verb is not infrequent after a plural subject, especially if this is neuter or is written with an ideogram. A plural verb is usual after a neuter singular pronoun referring to a plural antecedent [258].

Number is distinguished by the personal endings, on which see [382-434].

X. PERSON

381. Hittite has the familiar three persons of the IE languages. If one person seems occasionally to be used for another, that is due to a shift in the point of view—sometimes seeming to the modern reader very sudden and awkward.⁷² Very different from this is the frequent use of pret. 3 s. for 2 s., which goes so far that we must posit two sets of endings for the latter [390, 427]; cf. [408, 409].

The Personal Endings⁷³

1. The Endings of the *mi*-Conjugation

Present

382. All *mi*-conjugation verbs have the pres. 1 s. ending *mi*, which is identical with the ending of non-thematic presents in IE. See [389 fn. 75].

383. The regular ending of the pres. 2 s. in the *mi*-conjugation is *si* corresponding with the ending *si* of all IE presents. Sometimes the ending *ti* of the *hi*-conjugation intrudes. For 2 s. *stamaszi*, see [384].

384. All *mi*-conjugation verbs have in the pres. 3 s. the ending *zi* < IH *ti* [119]. From stems in *s* the phonologically correct form of the ending would be *ti*, and *tamasti* (*da-ma-aš-ti*) actually occurs [121]. The coexistence of this ending beside analogical *szi* led to occasional *szi* beside *sti* in the 2 s., e.g. *stamaszi* (*iš-ta-ma-aš-zi*—KBo. 5. 9. 2. 17; 5. 13. 3. 7; KUB 21. 5. 3. 9).

⁷² Sommer, AU 89 f.

⁷³ Petersen, AJP 53. 193-212.

385. The pres. 1 pl. usually ends in *weni* or *meni*, *meni* appearing after *u* and *weni* after any other sound. Pre-IH had pl. endings with initial *w*, but the combinations *uw* and *əw* became IH *um* [110]. IE made use of the doublets thus produced to distinguish dual and plural,⁷⁴ but Hittite retains the original distribution. Hittite, then, inherited IH *wes* and *mes*, and these were transformed into *weni* and *meni* by the influence of the 2 pl. ending *teni* [386]. But cf. [392, fn. 79].

The rarer endings *wani* and *mani* must represent IH *wos* and *mos*; cf. Lat. *mus*.

386. The present 2 pl. of both conjugations ends in *teni*, cognate with Vedic *thana*, both representing IH *tene*. Hittite changed final *e* to *i* under the influence of the three persons of the singular and of the 3 pl.

The rare ending *tani* is probably due to the analogy of *wani* beside *weni* in the 1 pl. [385].

387. The pres. 3 pl. of both conjugations usually ends in *anzi* < IH *onti* and *nti*. Two originally non-thematic verbs preserve *enzi* from IH *enti*, particularly in archaic and archaizing texts. *yenzi* 'they make' from IH *y-enti* beside 3 s. *yezi* < IH *yēti* is written *i-en-zi* (KBo. 4. 2. 1. 3, 22; 5. 3. 2. 8, 44; 6. 3. 2. 17; 6. 34. 2. 33 bis; KUB 10. 93. 1. 7; VBoT 24. 1. 8, 4. 27), *i-e-en-zi* (KBo. 3. 40. 1. 18; KUB 11. 1. 4. 11); and the more frequent spelling *i-ya-an-zi* may be interpreted in the same way [43], although it is equally possible that it stands for analogical *yanzi*. *wenzi* 'they come' < IH *gw-enti* 'they come' : Skt. *agām*, Doric *ἔβαν* 'I came' is written *ú-en-zi* (KBo. 6. 2. 4. 13) in the law code, with variant *ú-wa-an-zi* (KBo. 6. 3. 4. 7). In this case the second spelling, which is very frequent, cannot be explained away; unquestionably the normal form was *wanzi*. *wa-* 'come' was in general more thoroughly conformed to the thematic type than was *ya-* 'make' [297]. From thematic *tiya-* 'come' we read *ti-en-zi* (KBo. 5. 1. 3. 26; KUB 1. 17. 2. 9; 11. 34. 1. 50; 20. 76. 1. 8; 21. 5. 2. 14), which is perhaps due to the influence of synonymous *wenzi*. On *ḫa-li-en-zi* 'they protect', cf. [296, fn. 13]. For the ending *enzi* in verbs of the *hi*-conjugation, see [405].

Preterit

388. The preterit of the *mi*-conjugation is distinguished from the present by different personal endings, which correspond in large part with the secondary endings of the IE languages.

⁷⁴ Petersen, AJP 53.197, objects that the dual was a very ancient category, and that therefore the IE distribution of the 1 pl. endings must be the more archaic. Granted that the dual was very old for the noun [184] and perhaps for

389. The pret. 1 s. of *mi*-conjugation stems in a final consonant ends in *un* (e.g. *kwenun* 'I struck, slew'), while vowel stems have the ending *nun* (e.g. *kwenunun* 'I caused to be struck'). The only exception I have noticed is *paun* (*pa-a-un*, *pa-a-u-un*) 'I went', on which see [301].

The ending *un* must apparently be traced to *u*-stems. The inherited pret. 1 s. of *arnu*- 'bring' was **arnun* < IH *rneum*, and that of *wa*- 'come' was **wan* < IH *gwām*; the latter was changed to *wanun* (*ú-wa-nu-un*) by the analogy of **arnun*, and then the analogy of *wanun* changed **arnun* to *arnunun* (*ar-nu-nu-un*). Meanwhile inherited **epan* < IH *ēpām* 'I took' had been altered to *epun* (*e-ip-pu-un*) by the influence of **arnun*.⁷⁵

390. The pret. 2 s.⁷⁶ of thematic verbs sometimes retains the inherited ending *s*; e.g. *taskes* 'you took', *zkes* (*zi-ik-ki-eš*) 'you placed', *taksulaes* (*ták-šu-la-a-eš*) 'you made peace'. Much more frequently among thematic verbs and constantly elsewhere in the *mi*-conjugation the forms of the third person are substituted. The confusion started with preterites of the *hi*-conjugation from stems extended by *s* (*s*-aorists in the terminology of IE grammar), where IH 2 s. *-s-s* and 3 s. *-s-t* both yielded *s* [118, 409].⁷⁷ Hence we find *tarnas*, *tais*, etc. used both as pret. 2 s. and as pret. 3 s. [461, 462]. On final *ta*, see [391].

391. The pret. 3 s. of the *mi*-conjugation always ends in *t*. After a consonant final *t* was lost [118], but analogy restored it in all *mi*-conjugation verbs. After a consonant final *t* is necessarily written with a

the verb, it still may not have existed in the first person any more than in Attic Greek. In any case IH may have had different endings in the dual, which were supplanted in IE by *wes* and *we*.

⁷⁵ This complicated hypothesis of Petersen's (AJP 53. 202) is open to several objections, of which the chief is the fact that the imperfect IH *rneum* is not plausible. I may, therefore, suggest an alternative that will perhaps seem far more adventurous. Sommer, AU 231 and fn., has shown that the pres. 1 s. in Luwian may have had the personal ending *wi*. This might be connected with IH *mi* on the basis of the pre-IH change of *uw* and *əw* to *um* [110], with subsequent spread of *mi* to cover the whole territory in IE and in Hittite. Then Hittite *un* might represent IH *um* < *əw* in dissyllabic heavy bases. Since there is evidence (Walde-Pokorny 1. 679 ff.) for a dissyllabic heavy base beside IE *ghwen*- 'strike', we might trace Hittite *kwenun* (*ku-e-nu-un*) to IH *ghwenum* < *ghwenəw*. This same verb suggests an origin for the ending *nun*; *kwemi* : *kwenun* = causative *kwenumi* : *kwenunun*.—Further consideration leads me definitely to prefer this explanation to the one in the text.

⁷⁶ Götze, Madd. 58–60.

⁷⁷ It is less likely that we should assume the use of third person for second person for the sake of politeness; but cf. [236].

non-phonetic vowel [30], and in the pret. the sign chosen is nearly always *ta*; e.g. *est* (*e-eš-ta*) 'he was', *henkt* (*hi-en-ik-ta*) 'he determined'.

This virtually consistent orthography leads Petersen⁷⁸ to read *esta*, *henkta*, etc. He assumes that the perfect 2 s. ending IH *tha* was very early introduced into the *mi*-conjugation, and that its influence changed the 3 s. ending *t* to *ta*. In the *mi*-conjugation, however, the written *ta* occurs only after a consonant while after a vowel we have *it*, *at*, *ut* (e.g. *te-ik-ku-uš-ši-e-it*, *da-a-li-ya-at*, *tar-ra-nu-ut*). In the pret. 2 s. of the *hi*-conjugation, on the other hand, where the ending *ta* from IH *tha* is certain, we have such spellings as *pa-it-ta* 'you gave', *šar-ra-at-ta* 'you broke', *da-a-at-ta*, *da-at-ta* 'you took'; but among the far more numerous pret. 3 s. forms from vowel stems of the *mi*-conjugation I can cite only *pa-ap-ri-it-ta* (KBo. 3. 28. 2. 19) 'he was guilty', and *pa-a-it-ta* (KBo. 3. 7. 3. 13) 'he went'. The question would be definitely settled by the spelling [*i*]š-*tar-ak-ki-it* (KBo. 5. 9. 1. 15) = *iš-tar-ak-ta* (KUB 14. 15. 2. 6) if such spellings as *iš-tar-ak-ki-ya-at* and *iš-tar-ki-at* did not make it possible to read *starkiyet* instead of *starkt*.

392. The pret. 1 pl. and 2 pl. of all verbs end in *wen* (or *men* when *u* precedes) and *ten* respectively. These endings correspond to the present endings *weni* and *teni* precisely as the 2 s. *s* and the 3 s. *t* correspond to the present endings *si* and *zi* < IH *ti*. They are analogically created secondary endings which displaced IH *we* (*me*) and *te*.⁷⁹ Hence they originated in the *mi*-conjugation and later spread to the *hi*-conjugation. Just so 2 pl. *ten* must have spread to the imperative; cf. the "injunctive" use of secondary indicatives in IE.

393. The pret. 3 pl. always ends in *er*, an ending which belonged to the IH perfect [412].

Imperative

394. The rare imper. 1 s. of both conjugations⁸⁰ usually ends in *lu* after a vowel stem or in *alu* after a consonant stem; e.g. *peskelu* (*pi-iš-ki-el-lu*—KUB 6. 45. 3. 66) 'I will give', *memalu* (*me-ma-al-lu*—KUB 6. 46. 4. 42) 'I will say', *yalu* (*i-ya-al-lu*—KUB 14. 11. 3. 19) 'I will make', *uwalu* (*ú-wa-al-lu*—KUB 14. 8. 2. 42) 'I will see', *akalu* (*ag-ga-al-lu*—KBo. 4. 14. 2. 35) 'I will die', *asalu* (*a-ša-al-lu*—KBo. 4. 14. 1. 43) 'I will be', *asnulu* (*aš-nu-ul-l[u]*—KUB 14. 8. 2. 7) 'I will cause to sit'. From *es-* 'be' we have also *eslut* (*e-eš-lu-ut*—KBo. 6. 1. 1. 23; KUB 7. 2. 2. 23) and *eslit* (*e-eš-li-it*—KBo. 5. 3. 4. 33). Hrozný thinks of an imperative ending *u* and a middle ending *t* added to participial stems; cf. [434], which is not an attractive hypothesis.

⁷⁸ AJP 53. 203 f. He would say IE where I write IH.

⁷⁹ Bechtel prefers to assume an IH secondary ending *wen*, *men*, whose influence combined with that of primary 2 pl. *teni* to induce Hittite pres. 1 pl. *weni*, *meni*.

⁸⁰ Friedrich, IF 43. 257 f.; Hrozný, Congr. 1. 163.

395. The imper. 2 s. of the *mi*-conjugation regularly consists of the bare stem, as it does frequently in IE. The final thematic vowel is always written *i* in the stems with suffix *ske/a*, but stems in *ya* (whether *y* belongs to root or to suffix) always have imperatives ending in the sign *ya*, which may, however, be read *ye* [43]. The denominatives in *a(e)* always end the imper. 2 s. in *ae* (e.g. *a-ra-a-i*, *tar-kum-ma-i*). If the stem ends in two consonants either a non-phonetic vowel must be written or one consonant (in case it is *n*) may be omitted; e.g. *kars* (*kar-aš*) 'cut off', *lenk* (*li-i-ik*, *li-in-ik*, *li-in-ki*) 'swear', *nenk* (*ni-ik*, *ni-in-ka*, *ni-in-ga*) 'rise, be exalted, become intoxicated'.

Verbs with suffix *nu* and also the defective verb *i-* 'go' take an ending *t* in imper. 2 s.; e.g. *it* (*i-it*), *arnut* (*ar-nu-ut*) 'bring'. This ending is somehow connected with the IE ending *dhi*; it corresponds to Skt. *ihī* and Gk. *ῑι*, and in the RV verbs with suffix *nu* take the ending *hi* or *dhi* in about three fourths of the occurrences of the imper. 2 s.⁸¹ Since Hittite does not lose final vowels we must assume analogical loss of final *i* in Hittite or addition of *i* from some source in IE; cf. the ending *i* of the *hi*-conjugation [414].⁸²

396. The imper. 3 s. of the *mi*-conjugation always ends in *tu*, cognate with the Indo-Iranian ending *tu*. Cf. [415].

397. The imper. 2 pl. of all verbs ends in *ten*, which is thus identical in form with the pret. 2 pl. See [392].

398. The imper. 3 pl. of all verbs ends in *ntu* cognate with the Indo-Iranian ending *ntu*, *atu*.

2. The Endings of the *hi*-Conjugation

399. There is a great deal of suppletion in the *hi*-conjugation verbs. Those of the second class have a number of forms from stems extended by *s* or *es* [318, 320–322]; the third class has many forms with suffix *s* [320–322] and many from stems in *ya* [304, 305]. These heteroclitic forms are not treated systematically in the following sections; in fact, it is scarcely possible to reduce their varying employment to a consistent system. Nevertheless the stems in *s* and *es* are mentioned occasionally where that seems convenient.

Present

400. The present 1 s. of the *hi*-conjugation always ends in *hi*. The *hi* is sometimes attached directly to a final consonant of the stem (e.g.

⁸¹ Whitney, Skt. Gramm.² p. 257.

⁸² Petersen, AJP 53. 210, considers imper. *arnut* an original pret. 3 s. used as 2 s. [390] and then "injunctively" on the analogy of partially synonymous **arnus*.

a-ša-aš-ḫi, ka-ri-ip-ḫi). Even when a written vowel is interposed this may sometimes be due to the exigencies of the cuneiform system (e.g. *ši-pa-an-taḫ-ḫi*) and in other cases it may be due to the need for writing an original voiceless stop double [66] (e.g. *ša-ag-ga-aḫ-ḫi* 'I know'). On the whole it seems likely that in all consonant stems the ending was attached directly to the stem (*spanthi, sakhi*). The verb *lahu-*, *lahw-* 'pour' is treated like a consonant stem, making a 1 s. *lahuḫi* (*la-ḫu-uḫ-ḫi*). Stems in *a*, *ai*, and *au* append the ending directly to the stem (e.g. *da-aḫ-ḫi* from *ta-* 'take', *te-iḫ-ḫi* from *tai-* 'place', *u-uḫ-ḫi* from *au-* 'see').

401. It is possible in either one of two ways to connect Hittite *hi* with the diphthongal perfect ending of Skt. *bubudhe* 'I awoke', Lat. *vidi* 'I have seen', OLat. *fecei* 'I have made', ChSl. *vědě* 'I know'. (1) That the Hittite ending was pronounced *he* is suggested by the spelling *a-ša-aš-ḫé* (KBo. 3. 28. 2. 24) and by two forms that Hrozný⁸³ cites without reference as "*dāḫḫe*" and "*išpandāḫḫe*". Hittite *he* and IE *a²i* can both be derived from IH *ha²i*. Possibly the rarity of the spelling with *he* indicates that the analogy of the final *i* of the primary endings of the *mi*-conjugation had nearly banished original *e* from the *hi*-conjugation at the time when our texts were written. (2) The IE ending may have originated in the *ā*-stems and *ō*-stems (the Hittite second class). Pre-IH *āhi* > IH *ahi* [103a] > IE *ai*; cf. Hittite *memahi* 'I say' < IH *memnāhi* : Lat. *meminī* < IH *memnāhi*. Pre-IH *ōhi* > IH *ohi* > IE *oi*; cf. Hittite *tahi* 'I take' < IH *dohi* : Skt. *dade* (perf. 1 s. midd. from *dā-* 'give'). The rarity of the spelling with *he* leads me to prefer the second interpretation of the evidence.⁸⁴

402. The pres. 2 s. of the *hi*-conjugation almost always ends in *ti*, which is the IE perfect ending *tha*; the vowel was altered by the influence of the final *i* of all primary endings of the *mi*-conjugation. The intrusion of the ending *si* of the *mi*-conjugation is much rarer than the converse use of *ti* for *si*.

403. The pres. 3 s. of consonant stems of the *hi*-conjugation always ends in *i*, which must correspond with the perfect ending *e* of IE (e.g. Gk. *oīde*). Final *e* was changed to *i* under the influence of the primary endings of the *mi*-conjugation.

⁸³ Congr. 1. 158.

⁸⁴ Bechtel prefers my first alternative on the ground that even a few instances of written *e* are significant. He would account for the rarity of such a spelling by (1) the rarity of the sign *ḫé* and (2) the general tendency to write final *e* as *i*.

Petersen, AJP 53. 198, prefers to connect Hittite *hi* with IE *a* and to assume a change of *a* to *i* by the influence of the *mi*-conjugation. Of course that might happen; but it seems a bit perverse to choose IE *a* in place of the *i*-diphthong, whose middle use was a late development (Hirt, Idg. Gramm. 4. 265 ff.).

Sommer⁸⁵ interpreted *parsiya* (*pár-ši-ya*) 'breaks' as 3 s. of the *hi*-conjugation with dissimilative change of *iye* to *iya* (cf. 1 s. *pár-ši-ya-aḥ-ḥi*—VBoT 24. 4. 6); but in view of the forms *parsiyetari* (*pár-ši-it-ta-ri*—KBo. 6. 34. 2. 10) and *parsiyetaru* (*pár-ši-ya-ad-da-ru*, *pár-ši-it-ta-ru*—KBo. 6. 34. 1. 38, 2. 16) it is probably a middle form [427]. The regular *hi*-conjugation form **parsiyi* became *parsi* (*pa-ar-ši*—HT 1. 1. 60) [107], and the disparity of this form with the remainder of the conjugation led to a preference of the *mi*-conjugation *parsiyezi* (*pár-ši-ya-az-zi*, *pár-ši-ya-zi*) and especially of middle *parsiya*. Contracted *parsi* nevertheless remained in use, and induced plural *parsanzi* (*pár-ša-a-an-zi*—KUB 25. 14. 4. 9).

404. Verbs of the third class of the *hi*-conjugation have the bare stem in the pres. 3 s. [364], except that *au*- 'see' has adopted the ending of the *mi*-conjugation (*auszi*) [316]. The final diphthong of the third class was extended to verbs of the second class in IH times.

405. The plural endings of the present of the *hi*-conjugation are identical with those of the *mi*-conjugation; the 3 pl. ending was certainly taken from the IH present, and the other two are probably from the same source [385–387]. As in the *mi*-conjugation there are occasional instances of 3 pl. in *enzi*; e.g. *ḥa-at-tin-zi* (KBo. 4. 11. 1. 9), *ši-ip-pa-an-tin-zi* (KBo. 4. 13. 5. 12), *ú-tin-zi* (KBo. 2. 7. 1. 26).

Preterit

406. The preterit of the *hi*-conjugation is not an inherited category. At first the *hi*-conjugation had a single set of forms for present and past, both functions being inherited from the IH perfect. Then a new preterit was developed under the influence of the tense-system of the *mi*-conjugation.

407. The pret. 1 s. of the *hi*-conjugation ends in *hun*, a contamination of the pres. ending *hi* and the pret. ending *un* of the *mi*-conjugation. The stem takes the same forms as before the present ending *hi* [400].

408. The pret. 2 s. of the *hi*-conjugation usually ends in *ta* < IH *tha* of the perfect. When the ending of the pres. 2 s. was changed from *ta* to *ti* under the influence of the *mi*-conjugation [402], the original form remained in its preterit value.

409. All types of *hi*-conjugation verbs sometimes use a stem extended by *s* in the pret. 2 s. and 3 s.; it is to be identified with the *s*-aorist stem of IE [315–322]. Sometimes the suffixed *s* is final in the 2 s. as well as in the 3 s.; e.g. *tas* (*da-a-aš*) 'you took', *tarnas* (*tar-na-aš*) 'you put in', *tais* (*da-a-iš*, *da-iš*) 'you placed', *pais* (*pa-iš*) 'you gave'. Here we must assume simplification of final *ss*, as in the Skt. *s*-aorist. Since final *st*

⁸⁵ BoSt. 10. 65 f.

in the 3 s. also became *s*, there resulted identical form in the two persons, and this opened the way to an extensive use of 3 s. for 2 s. in the Hittite preterit [390]. Consequently it is uncertain what phonetic interpretation should be given to 2 s. *ša-ak-ta* 'you knew', *pa-aḫ-ḫa-aš-ta* 'you protected', *pi-eš-ta* 'you gave', etc.; they may have the *hi*-conjugation ending *ta* of the second person, in which case they are to be read *sakta*, *pahsta*, *pesta*; or they may be the analogically restored 3 s. used as 2 s., in which case they are to be read *sakt*, *pahst*, *pest*. In this book the 2 s. of *hi*-conjugation verbs is read in the former way, even though that involves an arbitrary separation of 2 s. *pesta* (*pi-eš-ta*) from 3 s. *pest* (*pi-eš-ta*).

410. The pret. 3 s. of the *hi*-conjugation is formed in four different ways, and frequently two or three equivalent forms are citable from a single verb.

(1) Preterites 3 s. consisting of the verb stem plus *s* are usual in the third class, common in the second, and comparatively rare in the first. Examples are *tais* (*da-a-iš*) from *tai* 'place', *tas* (*da-a-aš*) from *ta*- 'take', *aks* (*a-ak-ki-iš*, *ag-ga-aš*) from *ak*- 'die'. The apparent personal ending *s* comes from IH *st*, in which *s* is the suffix which formed the IE *s*-aorist and *t* is the personal ending [118].⁸⁶

(2) Preterites 3 s. consisting of the verb stem plus *st* are fairly frequent in the third class; e.g. *aust* (*a-uš-ta*, *a-ú-uš-ta*) from *au*- 'see', *naist* (*na-iš-ta*) from *nai*- 'lead'.⁸⁷ These forms are due to contamination of type (1) with types (3) and (4), and also with the *mi*-conjugation.

(3) Preterites 3 s. consisting of the verb stem less the stem vowel plus *est* are characteristic of the second class; *penest* (*pi-en-ni-eš-ta*) from *pena*- 'drive with one'. Probably the suffix *es* is somehow connected with that of IE aorists of the type of the Skt. *iṣ*-aorist [318]. *penes* (*pi-en-ni-iš*—KBo. 3. 8. 3. 18; 3. 34. 1. 25) and *tales* (*da-al-li-iš*—KUB 26. 71. 1. 12) are rare contaminations of the types *tas* and *penest*.^{87a}

(4) Preterites 3 s. consisting of the verb stem plus *t* appear occasionally in the first class; e.g. *asast* (*a-ša-aš-ta*) from *asas*- 'beset, set, found', *hast* (*ḫa-aš-ta*, *ḫa-a-aš-ta*, *ḫa-aš-ši-it*) from *has*- 'open', *stapt* (*iš-tap-ta*—KBo. 6. 29. 2. 34) from *stap*- 'cover, enclose, store up'.

⁸⁶ Petersen, Lang. 9. 28 f., points out the use of preterites 2 s., 3 s., and 2 pl. with suffixal *s* in Tocharian.

⁸⁷ Occasional *naest* (*na-eš-ta*) may be dissyllabic and represent a further contamination with type (3).

^{87a} Perhaps we should rather consider *penes* the regular development; in any case *penest* must have analogical *t* [118].

These forms are almost certainly due to the influence of the *mi*-conjugation. The only alternative is to read *asasta*, *hasta*, *stapta*, etc. and regard them as extensions of the form proper to the 2 s.; cf. [409].

411. The pret. 1 pl. and 2 pl. of the *hi*-conjugation are modeled closely upon the corresponding persons of the *mi*-conjugation [392]. Forrer and Delaporte⁸⁸ cite without reference pret. 2 pl. *naisten* and *pesten*, but I have not seen the pret. 2 pl. with *s* before the ending, except from verbs that make a complete conjugation on a stem in *s*. Perhaps the forms cited should be classed as imperatives.

412. The pret. 3 pl. of the *hi*-conjugation ends in *er*, cognate with Skt. *ur*, Av. *ara*, Lat. *ēre*. Hittite corresponds with Lat. in ablaut, and with Indo-Iranian in having no vowel after the liquid. Probably the IH ending was *ēr/ur*. This was inherited by Hittite from the IH perfect, and until the differentiation of the tenses of the *hi*-conjugation it necessarily served indifferently for present-future and for past time [406]. Its specialization as a pret. ending must have been connected with the introduction of the *mi*-conjugation ending *anzi* to serve in the pres. 3 pl. [405]. At some subsequent time the ending *er* was transferred to the pret. 3 pl. of the *mi*-conjugation.

The third class of the *hi*-conjugation shows either a form from the subsidiary *y*-stem (*tiyer*, *neyer*) or, by analogy with the second class, *taer*, *naer*, etc.

Imperative

413. For the imper. 1 s., see [394].

414. The imper. 2 s. of the first class of the *hi*-conjugation is like the verb stem in *sak* (*ša-a-ak*—KBo. 5. 3. 1. 8, 11, 14) 'know', *ans* (*a-an-a[š]*—Bo. 2488. 2. 7) 'wipe', and *ak* (*a-ak*) 'die'.⁸⁹ It has an ending *i* in *saki* (*ša-k[i]*—KUB 21. 1. 3. 75), *pahsi* (*pa-aḥ-ši*) 'protect', and *eri*.⁹⁰ Since the IE imperative ending *dhi* appears in Hittite as *t*, the corresponding IH ending was probably *dh* [395]; the *i* of IE *dhi* may be connected with the ending *i* of these *hi*-conjugation imperatives. The imper. 2 s. of verbs of the second class is often like the stem; e.g. *ta* (*da-a*) 'take', *tarna* (*tar-na*) 'put in'. About equally frequent is the change of the stem vowel *a* to *i*, probably after the analogy of the first class; e.g. *memi* (*me-mi*) 'say', *uni* (*u-un-ni*) 'drive hither'. The imper.

⁸⁸ Forrer, ZDMG 76. 214; Delaporte, Gramm. 75.

⁸⁹ According to Friedrich, ZDMG 76. 170, and Forrer, ib. 214. I have not met the form.

⁹⁰ Cited without reference by Delaporte, Gramm. 78.

2 s. of verbs of the third class of the *hi*-conjugation is like the stem; e.g. *tai* (*da-a-i*) 'place', *nai* (*na-a-i*) 'lead, turn, drive', *au* (*a-ú*) 'see'.

415. The imper. 3 s. of the *hi*-conjugation usually has the ending *u*, which takes the place of the second member of a final diphthong *ai* of the stem; e.g. *aku* (*a-ku*) from *ak-* 'die', *memau* (*me-ma-a-ú*) from *mema* 'say', *tau* (*da-a-ú*) from *tai-* 'place'. The existence of the ending *u* in Hittite confirms Brugmann's⁹¹ conjecture that the Indo-Iranian ending *tu* is composite; his connection of the element *u* with the particle *u* remains problematic.

The ending *tu* of the *mi*-conjugation is common in verbs of the first class and it is sometimes found, with or without preceding *s*, in verbs of the second and third class; e.g. *aktu* (*ak-du*—KUB 8. 48. 1. 9) from *ak-* 'die', *saktu* (*ša-a-ak-du*—KBo. 5. 3. 1. 9) from *sak-* 'know', *saratu* (*šar-ra-at-tu*—KBo. 3. 27. 1. 25; 3. 28. 2. 21) from *sara-* 'divide, break', *talestu* (*ta-a-li-eš-du*—KBo. 3. 3. 2. 9) from *tala-* 'leave, let go', *austu* (*a-uš-du*) from *au-* 'see'.

416. The imper. 2 pl. of the *hi*-conjugation differs from the same person of the *mi*-conjugation only in an incipient tendency of the second and third class to use the stem in *s* to distinguish the imper. 2 pl. from the pret. 2 pl. [411]; e.g. *memesten* (*me-mi-eš-tin*, *me-mi-iš-tin*) from *mema-* 'say', *tarnesten* (*tar-ni-iš-tin*—KUB 6. 45. 1. 32) beside *tarnaten* (*tar-na-at-tin*—KUB 14. 11. 3. 18) from *tarna-* 'put in', *naisten* (*na-iš-tin*, *na-a-iš-tin*)⁹² from *nai-* 'lead, turn, drive'.

417. The imper. 3 pl. of the *hi*-conjugation gets its ending *antu* from the *mi*-conjugation [398].

3. The Medio-Passive Endings⁹³

418. The personal endings of the medio-passive display a great deal of non-significant⁹⁴ variation. The system is altogether bewildering as long as one considers the several endings as individual wholes. It is clear, however, that a majority of these must be analyzed into two parts, namely the personal ending proper, and an appended element that serves to fix the tense or the mood. The IE languages make considerable use of tense signs and mood signs, but these invariably precede

⁹¹ Grund. 2².3. 579.

⁹² *na-eš-tin* (KBo. 5. 4. 2. 19) shows contamination with the stem in *es*, which ordinarily belongs to verbs of the second class [318, 410 fn. 86].

⁹³ Hrozný, Congr. 1. 155–64; Sturtevant, Lang. 7. 242–51; Petersen, AJP 53. 204–10.

⁹⁴ That is, as far as our present knowledge carries us.

the personal endings; and so at this point we evidently face one of the major differences between the IE and the Hittite morphological system, whatever the explanation may be.

For the stems of the medio-passive, see [371-377].

The Signs of Tense and Mood

419. There are four elements, *ri*, *ru*, *t*, and *ti*, that may be appended to fully characterized medio-passive forms,⁹⁵ and that generally determine the mood and the tense. In one verb we have *ni* and *nu*, which seem to parallel *ri* and *ru* [425]. Medio-passive forms without any appended tense sign or mood sign belong to the present indicative. It is a reasonable inference that Hittite once had no distinction of tense in the medio-passive any more than it had in the *hi*-conjugation.

ri

420. Any midd. personal ending except imper. 2 s. *hu*, and also a 3 s. without personal ending, may be followed by the syllable *ri*, the resultant combination serving as a present form. No one doubts the connection of this element with the *r* of the Italic, Celtic, and Tocharian medio-passive; cf. *esari* (*e-ša-ri*) 'he sits' : Osc. *sakrafir* 'let there be consecration', Ir. *canar* 'there shall be singing'; *artari* (*ar-ta-ri*) 'rises, starts, stands' : Lat. *amātur*, *oritur*; *arantari* (*a-ra-an-ta-ri*) 'they rise, start, stand' : Lat. *amantur*, *oriuntur*. The further connection with the 3 pl. active endings containing *r* and with the Indo-Iranian 3 pl. midd. endings *re* and *ran* is uncertain. If we connect the Skt. *re* < IE *ra²i*, then Hittite *ri* and Lat. *r* probably come from IH *ri*, the corresponding zero grade.

In Tocharian the addition of *r* to a middle form marks it as present, but in that language the unextended form is regularly pret. If, as seems probable, the pret. midd. was not originally a distinct tense, this partial agreement would seem to be due to a common innovation.⁹⁶

ru

421. The syllable *ru* may be appended to middle forms of 1 s., 3 s., or 3 pl. to mark the imperative mood. The syllable represents a contamination of *ri* with the endings *tu* and *u* of the active.

⁹⁵ This statement is descriptively true whatever one may think of the history of the combined form.

⁹⁶ Cf. Petersen, Lang. 9. 13-15, 30 f.

I

422. Any midd. personal ending may be followed by *t*⁹⁷; the combined forms serve as preterites, except that *hu-t* (whose *t* is probably IH *dh* [395]) always marks the imper. 2 s. and *tuma-t* may mark the imper. 2 pl. Petersen's suggestion that these forms come from the analogy of the 3 s. secondary ending *t* of the active voice is possibly correct; cf. Skt. *aduhat* beside *aduha*, and see [429 with fn. 103]. For a different suggestion, see [434].

ti

423. Any midd. personal ending may be extended by the syllable *ti*. The resulting complex usually has preterit value, except that *hu-ti* can be nothing but the final of an imper. 2 s. and *tuma-ti* may as well belong to the imper. 2 pl. as to the pret. 2 pl. A number of forms with final *ti* also serve as presents; e.g. 2 s. *neyatati* (KBo. 5. 9. 1. 33), *artati* (KBo. 5. 3. 2. 11), *kestati* (KBo. 5. 3. 2. 43; 5. 13. 2. 6; KUB 14. 3. 1. 21; 19. 50. 3. 13); 3 s. *lukate* (*lu-uk-kat-ti*, *lu-uk-kat-te*—KUB 20. 80. 3. 1, *lu-kat-te*—KUB 25. 21. 4. 2), *teti* (? KUB 13. 4. 1. 33);⁹⁸ 1 pl. *eswastati* (KBo. 3. 7. 4. 7), *zahi yawastati* (KBo. 3. 4. 2. 13; KUB 21. 10. 1. 9). Since these forms contrast with the general tendency to specialize *ti* as a sign of the preterit, they probably represent a survival from an earlier system; probably *ti* was once a part of the undifferentiated middle tense, functioning more or less as *ri* does in our texts.

Striking confirmation of this inference is furnished by the stereotyped *lukati* or rather *lukate*, which occurs only where it is best translated 'the next morning, the next day'. A typical instance is: KUB 10. 48. 1. 1 : *lukatema* LUGAL-*us* Arina paizi (*lu-uk-kat-ti-ma* LUGAL-*uš* ^{URU}A-*ri-in-na pa-iz-zi*) 'The next day, however, the king goes to Arina'. Sommer⁹⁹ demonstrated this meaning for *lukate* and its commoner synonym *lukata*; but the latter word is frequently accompanied by a conjunction *mahan* or *man* 'when', as follows: KBo. 5. 2. 2. 29 : *man lukata* ^DUTU-*uskan upzi, nu* . . . (*ma-a-an lu-uk-kat-ta* ^DUTU-*uš-kán u-up-zi, nu* . . .). This surely means 'when day dawns (and) accordingly the sun rises, then . . .'; if the meaning were merely 'And so when next day the

⁹⁷ I cannot cite a pret. 1 pl. in *wasta-t*, but that is probably an accidental gap in our evidence. Hrozný, Congr. 1. 156, cites *arwastat* as a present.

⁹⁸ Apparently midd. pres. 3 s. of *tai*- 'place', beside active *wetezi* 'builds' [302]. Cf. Korošec, Vert. 105. 33. We seem to have the same form in pret. value in KUB 17. 10. 4. 3.

⁹⁹ BoSt. 7. 22-32.

sun rises,' the enclitic *kan* would be attached to an earlier word in the sentence. Consequently sentences of the type cited above from KUB 10. 48. 1. 1 must originally have meant 'day dawns (and) . . .'. The survival of an archaic form in a semantically altered use is to be expected; it is not an accident that *lukata*, which conforms to the usual presents in our texts, is frequently used with *mahan* or *man*, while archaic *lukate* never is.

424. If the ending *ti* belonged originally to presents as well as to preterites there is no difficulty in connecting it with the IE midd. 3 s. ending *tai*. The two instances cited above of final *te* in *lukate* indicate that that word should be so pronounced. Probably the constant writing of other words with final *i* indicates that phonologically correct *te* was altered to *ti* by some analogy—more likely that of the suffix *ri* than that of the primary active endings. It is less likely that *ti* is from IH *tī*, a variant of *tai*; for that would probably yield Hittite *zi* [119]. For further possible connections, see [434].

*ni, nu*¹⁰⁰

425. A single verb substitutes *ni* and *nu* for *ri* and *ru*, namely *warani* (*wa-ra-a-ni*) 'burns, is consumed', imper. 3 s. *waranu* (*wa-ra-a-nu*—KUB 17. 12. 3. 5). Sommer suggests that **warari* was dissimilated to *warani*. For another possibility, see [434].

The Medio-Passive Personal Endings

426. The only citable forms of the midd. pres. 1 s. end in *hari* or in *hahari*; e.g. *yahari* (*i-ya-aḥ-ḥa-ri*) from *ya*- 'go', *eshahari* (*e-eš-ḥa-ḥa-ri*) from *es*- 'sit'. If we detach the tense sign *ri*, as we should have to do from any other midd. form ending in *ri*, there remains a personal ending *ha* or *haha*. The pret. 1 s. ends in *hat*, *hahat*, or *hati*; e.g. *eshat* (*e-eš-ḥa-at*), *eshahat* (*e-eš-ḥa-ḥa-at*), *eshati* (*e-eš-ḥa-ti*) from *es*- 'sit'. Here again the removal of the tense sign leaves an ending *ha* or *haha*. Just so the imper. 1 s. ends in *haru* or *haharu*, namely *uwaharu* (*u-wa-aḥ-ḥa-ru*—KUB 14. 14. 2. 15, 30) from *au* 'see', *arhaharu* (*ar-ḥa-ḥa-ru*—KBo. 4. 14. 3. 6) from *ar*- 'rise, start, stand'; and this again implies personal endings *ha* and *haha*. The texts actually contain verb forms ending in *ha*, but the context requires preterit meaning and they are frequently preceded by the "glossenkeil". Probably they are Luwian active forms

¹⁰⁰ Sommer, KIF 1. 120-4.

[10].¹⁰¹ I see in the complex *hari* the cognate of Lat. *or* (*regor* 'I am ruled') < IH *hōri*, and in *ha-* the IE active ending *ō*.¹⁰²

427. The 2 s. and 3 s. midd. are indistinguishable. Both are formed with the personal ending *ta* or *nil*; e.g. pres. 2 s. *pahsta* (*pa-aḥ-ḥa-aš-ta*—KUB 1. 16. 3. 28) from *pahs-* 'protect', *yatari* (*i-ya-ad-da-a-ri*—KBo. 5. 1. 4. 22) from *ya-* 'go', *karusiyari* (*ka-ru-uš-ši-ya-ri*—KUB 6. 41. 3. 60) from *karusiya-* 'be quiet'; pret. 2 s. *kesat* (*ki-ša-at*—KBo. 6. 3. 2. 30) from *kes-* 'become', *artat* (*ar-ta-at*—KUB 21. 1. 3. 25), *artati* (*ar-ta-ti*) from *ar-* 'rise, start, stand'; pres. 3 s. *arta* (*ar-ta*), *artari* (*ar-ta-ri*) from *ar-*, *esa* (*e-ša*), *esari* (*e-ša-a-ri*, *e-ša-ri*) from *es-* 'sit'; pret. 3 s. *yatat* (*i-ya-at-ta-at*), *yatati* (*i-ya-at-ta-ti*—KUB 8. 48. 1. 16) from *ya-* 'go', *esat* (*e-ša-at*), *esati* (*e-ša-ti*—KUB 17. 10. 1. 34) from *es-* 'sit'; imper. 3 s. *esaru* (*e-ša-ru*) from *es-*, *artaru* (*ar-ta-ru*) from *ar-*.

428. The ending *ta* is identical with the secondary ending *to* of Gk. (*το*) and Skt. (*ta*), and *tari* with Lat. *tur* < IE *tori*. It is probable that Hittite, Latin, and Gothic preserve an IH feature in using *tš(-ri)* in present value. The Umbrian distinction of primary *ter* (< *tṛ* < *tori* ?) from secondary *tur* is certainly a late specialization. Gothic *da* probably comes from IE *tō* by the well-known shortening of final vowels rather than from IE *tai* by a phonetic law to be inferred solely on the basis of the middle endings. Then Indo-Iranian and Gk. specialized *to* as a secondary ending in connection with their establishment of *tai* as a primary ending.

429. IE preserves only a few traces of the midd. 3 s. without suffix or with no other suffix than the vowel *o*. Skt. midd. imperf. 3 s. *aduha* for *adugdha* and *aiṣa* = *aiṣta* can be explained as analogical creations based upon pres. 3 s. *duhe* and *iṣe*¹⁰³; but it is more likely that they are survivals. Osc. *sakrafir*, Ir. *canar*, etc., correspond closely with Hittite *esari*, in which *ri* is a tense sign (in IH a voice sign?) rather than a personal ending.

For pres. 2 s. and 3 s. forms with final *ti* or *te*, see [423].

430. The midd. 1 pl. personal ending *wasta* occurs alone in the present; e.g. *arwasta* (*ar-wa-aš-ta*—KUB 17. 21. 4. 6) from *ar-* 'rise,

¹⁰¹ See most recently Sommer, AU 62 fn. 1, 71, 389. On p. 163 he interprets *usaiha* in a future perfect sense, a force usually expressed by the present; but even here he regards the form as preterit.

¹⁰² Petersen, AJP 53. 205, derives *a* from the analogy of the 3 s. ending *ta* and he regards *h* as a "hiatus-avoiding device."

¹⁰³ Brugmann, Grund. 2^a. 3. 649.

start, stand'. It is followed by the tense sign *ti* in *priyawastati* (*pa-ri-ya-u-wa-aš-ta-ti*—KUB 8. 48. 1. 1) 'we fanned < a fire > with our breath(?)', *salekwastati* ([*ša*]-*li-ku-wa-aš-ta-ti*—KBo. 3. 45. 9) from *salek*- 'lie with, together'. The ending *wasta* is in some way connected with the IH 1 pl. ending *wes/wos* [385], and also with Skt. midd. 1 dual *vahe* (primary), *vahi* (secondary) and 1 pl. *mahe*, *mahi* : Gk. 1 pl. *μεθα*. Perhaps an IH midd. ending *wedhə* was contaminated with the active ending IH *wes*, *wos*.¹⁰⁴

For the midd. pres. 1 pl. with final *ti*, see [423].

431. The midd. 2 pl. personal ending *tuma* occurs alone in the pres.; e.g. *pahstuma* (*pa-aḥ-ḥa-aš-du-ma*—KUB 1. 16. 3. 47, 49) from *pahs*- 'protect'. It is followed by a tense sign or a mood sign in pres. 2 pl. *sarkaliyatumari* (*šar-ka-li-ya-tu-ma-ri*—KUB 1. 16. 2. 49), pret. 2 pl. *kestumat* (*ki-iš-du-ma-at*—KUB 14. 16. 3. 29) from *kes*- 'become', imper. 2 pl. *pahstumat* (*pa-aḥ-ḥa-aš-du-ma-at*—KBo. 4. 12. 2. 3) from *pahs*-, *estumat* (*e-eš-tum-ma-at*—KUB 12. 66. 4. 12, *e-eš-du-ma-at*—KUB 14. 1. 2. 40) from *es*- 'sit', *ketumati* (*ki-id-du-ma-ti*—KBo. 5. 12. 4. 7) from *ke*- 'lie', etc. The ending *tuma* contains inherited *tum* < IH *dhum*, zero grade of IH *dhwem*, whence the Skt. secondary ending *dhwam* in *āddhwam* 'you sat', etc. The final vowel is from the analogy of other midd. personal endings, notably 1 pl. *wasta* and 3 pl. *anta*.

432. The midd. 3 pl. personal ending *anta* occurs alone in the pres.; e.g. *esanta* (*e-ša-an-ta*, *e-ša-an-da*) from *es*- 'sit', and with a following tense sign or mood sign in such forms as pres. 3 pl. *esantari* (*e-ša-an-ta-ri*, *e-ša-an-da-ri*) from *es*-, pret. 3 pl. *esantat* (*e-ša-an-da-at*, *e-ša-an-ta-at*) from *es*-, *kesantat* (*ki-ša-an-ta-at*, *ki-ša-an-da-at*), *kesantati* (*ki-i-ša-an-ta-ti*) from *kes*- 'become'; imper. 3 pl. *pahsantaru* (*pa-aḥ-ša-an-ta-ru*, *pa-aḥ-ša-an-da-ru*) from *pahs*- 'protect'. The ending *anta* from IH *onto*, *nto* is cognate with Skt. *anta*, *ata* and Gk. *οντο*, *ατο*, both of which are secondary endings.

433. The midd. imper. 2 s. ending *hu* occurs with a following mood sign *t* or *ti*, thus *eshut* (*e-eš-ḥu-ut*) from *es*- 'sit', *seskiyahut* (*še-eš-ki-ya-aḥ-ḥu-ut*—KBo. 3. 16. 2. 9) with variant *seskiyahuti* (*še-eš-ki-aḥ-ḥu-ti*) from *seskiya*- beside *sesk*- 'sleep'. The ending appears alone in the isolated *ehu* 'up, come'.

434. I am inclined to think that the IH medio-passive was a relatively recent development under the influence of the previously existing active

¹⁰⁴ Petersen, AJP 53. 205 f., prefers to operate with an IH 1 pl. *medhə* or *medhi*; but if, as I believe, the 1 pl. endings get *m* only from earlier *w* [110], our Hittite ending surely calls for initial *w*.

verb. Many of its forms can be derived from noun or adjective stems or case forms of familiar type. The suffixless 3 s. like *esa* 'he sits' < IH *ēso* may be a noun stem without suffix other than the thematic vowel. The personal ending IH *to* reminds one of the suffix *to* of verbal adjectives. The ending IH *nto* may be connected with the participial suffix *nt*. The tense sign *t* may be equated with the suffix *t* of verbal nouns [155], and *te* < IH *tai* may be dat.-loc. from such a stem—in which case the Balto-Slavic infinitive endings must be more or less closely identified with it. The tense-suffix *ri* beside *ni* reminds one of the *r/n* noun stems, and particularly of Gk. infinitives in *vai*. All this, however, is far less certain than most of the etymological suggestions advanced in [420–432].

XI. VERBAL NOUNS AND ADJECTIVES

1. Participle

435. The Hittite verb has a single participle, formed with the suffix *nt*. In use it rather closely parallels the Latin participle in *tus*. For details, see [170].

2. Infinitives

436. Active verbs and sometimes middle verbs form infinitives with suffix *wanzi*, *manzi*. For details, see [162]. The gen. of the verbal noun in *war* or *mar* is used as an adnominal infinitive [161a]. The infinitives of middle verbs are usually case forms of the verbal noun in *tar*; the dat. in *ana* (less commonly in *ani*) denotes purpose, and the gen. in *anas* is used adnominally. For details, see [158].

For the supine in *wan*, see [161b].

3. Verbal Nouns

437. A verbal noun may be formed from any verb in the language to carry the meaning of the Gk. infinitive with the article or the Lat. construction seen in *dolēre malum est*. From active verbs such derivatives are normally made with the suffix *war*, *mar* [161], and from middle verbs with the suffix *tar* [156, 157], *sar*, or *esar* [160].

XII. PERIPHRASTIC CONJUGATIONS¹⁰⁵

438. The use of the participle with forms of the verb *es-* 'be' scarcely requires discussion. Examples are: KBo. 5. 8. 1. 37 f.: *nata kwiski panz est* (Ū.UL *ku-iš-ki pa-an-za e-eš-ta*) 'no one had gone'; KUB

¹⁰⁵ Friedrich, ZDMG 76. 173.

21. 1. 3. 3 f. + 21. 5. 3. 18 f. + 21. 4. 1. 23 f.: *ishiul kisan yan estu* (*iš-ḥi-ú-ul ki-iš-ša-an i-ya-an e-eš-du*) 'let the treaty be made as follows'.

439. Somewhat more surprising is the use of *har(k)*- 'have' with the neuter of the participle as a periphrastic perfect;¹⁰⁶ e.g. KBo. 5. 8. 1. 23 f.: *numu stamasan kwit harker* (*nu-mu iš-ta-ma-aš-ša-an ku-it ḥar-ki-ir*) 'and because they had heard of me'; KBo. 5. 1. 1. 41 f.: *manwa anastes nasma atastes apeziaz kwitki watanwan harkanzi* (*ma-a-an-wa AMA.KA na-aš-ma A.BU.KA ap-pi-iz-zi-az ku-it-ki wa-aš-ta-nu-wa-an ḥar-kan-zi*) 'if finally thy mother or thy father have interpreted anything as a sin' (literally 'caused any sin to be committed').

440. The supine in *wan* is combined with forms of *tai*- 'place' in a sense approximating 'begin and continue the action denoted by the verb' [161b].

XIII. PARADIGMS

1. The *mi*-Conjugation

a. Root Verbs with Radical *e/o/ṽ/0* and Final Consonant

441. *es*- 'be', *ses*- 'sleep', *weh*- 'turn', *wes*- 'clothe'.

Present

1 s.	<i>esmi</i>	(<i>e-eš-mi, še-eš-mi</i>)
3 s.	<i>eszi</i>	(<i>e-eš-zi, še-eš-zi, ú-e-iḥ-zi</i>)
3 pl.	<i>asanzi</i>	(<i>a-ša-an-zi, ša-ša-an-zi</i>)

Preterit

1 s.	<i>esun</i>	(<i>e-šu-un, še-e-šu-un, ú-e-ḥu-un</i>)
2 s.	<i>est</i>	(<i>e-eš-ta</i>)
3 s.	<i>est</i>	(<i>e-eš-ta, eš-ta, še-eš-ta</i>)
1 pl.	<i>eswen</i>	(<i>e-šu-u-en, e-šu-en</i>)
2 pl.	<i>esten</i>	(<i>e-eš-tin</i>)
3 pl.	<i>eser</i>	(<i>e-šir, e-še-ir</i>)

Imperative

2 s.	<i>es</i>	(<i>e-eš</i>)
3 s.	<i>estu</i>	(<i>e-eš-du, e-eš-tu, še-eš-du, ši-iš-du</i>)
2 pl.	<i>esten</i>	(<i>e-eš-tin, e-eš-te-en, ú-e-eš-tin</i>)
3 pl.	<i>asantu</i>	(<i>a-ša-an-du, wa-ḥa-an-du, wa-aš-ša-an-du</i> ¹⁰⁷)
Part.	<i>asanz</i>	(<i>a-ša-an-za, wa-ḥa-an-za</i>)

¹⁰⁶ Sommer, BoSt. 10. 30.

¹⁰⁷ Perhaps thematic.

Infin.	<i>waswanzi</i>	(<i>wa-aš-šu-u-wa-an-zi</i> , <i>wa-aš-šu-u-an-zi</i>)
Supine	<i>waswan</i>	(<i>wa-aš-šu-wa-an</i>)
Verb. N.	<i>waswar</i>	(<i>wa-aš-šu-u-wa-ar</i>)

Rarer and Heteroclitic Forms

Present		
3 s.	<i>wahzi</i>	(<i>wa-aḥ-zi</i> —KUB 1. 13. 1. 49)
	<i>uhzi</i>	(? <i>ú-uḥ-zi</i> or <i>ú-iḥ-zi</i> —KUB 11. 34. 6. 53)
3 pl.	<i>sesanzi</i>	(<i>še-e-ša-an-zi</i>)
Imperative		
1 s.	<i>eslut</i>	(<i>e-eš-lu-ut</i>)
	<i>eslit</i>	(<i>e-eš-li-it</i>)
Infin.	<i>seswanzi</i>	(<i>še-e-šu-u-wa-an-zi</i> —KUB 13. 4. 3. 6)

442. *et*- 'eat', *hat*- 'dry up', *mat*- 'endure', *spart*- 'escape'.

Present		
1 s.	<i>etmi</i>	(<i>e-it-mi</i>)
2 s.	<i>mazti</i>	(? <i>ma-za-at-ti</i> —KBo. 4. 14. 4. 60)
3 s.	<i>ezzi</i>	(<i>e-iz-za-az-zi</i> , <i>e-za-az-zi</i> , <i>e-iz-za-zi</i> , <i>ḥa-az-zi-iz-zi</i> , <i>ḥa-az-zi-zi</i> , <i>iš-pár-za-az-zi</i> , <i>iš-pár-za-zi</i>)
1 pl.	<i>atweni</i>	(<i>a-tu-e-ni</i>)
2 pl.	<i>azteni</i>	(<i>az-za-aš-te-ni</i>)
3 pl.	<i>atanzi</i>	(<i>a-da-an-zi</i> , <i>a-ta-a-an-zi</i>)
Preterit		
2 s.	<i>mazt</i>	(<i>ma-az-za-aš-ta</i>)
3 s.	<i>ezt</i>	(<i>e-iz-ta</i> , <i>ḥa-az-za-aš-ta</i> , <i>ḥa-a-az-za-aš-ta</i> , <i>ma-az-za-aš-ta</i> , <i>iš-pár-za-aš-ta</i>)
3 pl.	<i>eter</i>	(<i>e-te-ir</i> , <i>ḥa-at-te-ir</i> , <i>iš-pár-te-ir</i>)
Imperative		
2 s.	<i>et</i>	(<i>e-it</i>)
Part.	<i>atanz</i>	(<i>a-da-an-za</i>)

Forms with Suffix *sa* [461]¹

Present		
2 s.	<i>mazati</i>	(? see above)
3 s.	<i>ezai</i>	(<i>e-iz-za-a-i</i> —KUB 13. 4. 1. 53, 4. 5)
Preterit		
1 s.	<i>sparzahun</i>	(<i>iš-pár-za-aḥ-ḥu-un</i> —KUB 25. 21. 3. 14)
3 pl.	<i>sparzer</i>	(<i>iš-pár-zi-ir</i> —KUB 1. 6. 2. 8)

Imperative		
2 s.	<i>eza</i>	(? <i>e-iz-za-az-za</i> —KUB 20. 92. 6. 8)
2 pl.	<i>ezaten</i>	(<i>e-iz-za-at-tin</i> —KUB 17. 27. 2. 20)
3 pl.	<i>ezantu</i>	(<i>e-iz-za-an-du</i> —KUB 9. 31. 3. 2)

443. *kwen-* 'strike, slay', *hwek-* 'conjure', *kwer-* 'cut off'.

Present

1 s.	<i>kwemi</i>	(<i>ku-e-mi</i>)
2 s.	<i>kwesi</i>	(<i>ku-e-ši</i>)
3 s.	<i>kwenzi</i>	(<i>ku-en-zi, hu-ik-zi, hu-e-ik-zi, hu-u-e-ik-zi, ku-ir-zi, ku-e-ir-zi</i>)
3 pl.	<i>kunanzi</i>	(<i>ku-na-an-zi, ku-ra-an-zi</i>)

Preterit

1 s.	<i>kwenun</i>	(<i>ku-e-nu-un</i>)
2 s.	<i>kwent</i>	(<i>ku-en-ta</i>)
3 s.	<i>kwent</i>	(<i>ku-en-ta, hu-e-ik-ta, ku-e-ir-ta</i>)
1 pl.	<i>kwewen</i>	(<i>ku-e-u-en</i>)

Imperative

3 s.	<i>kwentu</i>	(<i>ku-en-du, ku-in-du, hu-ik-du</i>)
3 pl.	<i>kunantu</i>	(<i>ku-na-an-du, ku-ra-an-du</i>)
Part.	<i>kunanz</i>	(<i>ku-na-an-za, ku-ra-an-ta-an</i>)

Rarer and Derivative Forms

Present

1 s.	<i>hukmi</i>	(<i>hu-uk-mi</i> —KUB 17. 28. 2. 3)
3 s.	<i>hukzi</i>	(<i>hu-uk-zi</i>)

For *kwenumeni*, *kwenateni*, *kwenanzi*, *kwener*, *kweni*, *kwenumanzi*, *kwenumar*, see [353-356, 461].

b. Root Verbs with Radical *ē/ə/0* and Final Consonant

444. *ep-* 'take', *eku-* 'drink' [54b], *es-* 'set, sit'.

Present

1 s.	<i>epmi</i>	(<i>e-ip-mi</i>)
2 s.	<i>epsi</i>	(<i>e-ip-ši, e-ku-uš-ši</i>)
3 s.	<i>epzi</i>	(<i>e-ip-zi, e-ku-zi, e-ku-uz-zi, e-eš-zi</i>)
1 pl.	<i>epweni</i>	(<i>ip-pu-u-e-ni</i> —Bo. 2365. 2. 10)
2 pl.	<i>epteni</i>	(<i>e-ip-te-ni, e-ip-te-e-ni, e-ku-ut-te-ni</i>)
3 pl.	<i>apanzi</i>	(<i>ap-pa-an-zi, a-ku-wa-an-zi, a-ku-an-zi, a-ša-an-zi</i>)

Preterit

1 s.	<i>epun</i>	(<i>e-ip-pu-un</i> , <i>e-ip-pu-u-un</i>)
2 s.	<i>ept</i>	(<i>e-ip-ta</i>)
3 s.	<i>ept</i>	(<i>e-ip-ta</i>)
1 pl.	<i>epwen</i>	(<i>e-ip-pu-en</i> —KBo. 3. 60. 3. 6, <i>e-ku-e-en</i> —HT 1. 1. 45)
3 pl.	<i>eper</i>	(<i>e-ip-pir</i> , <i>e-ip-pi-ir</i> , <i>e-ku-ir</i> , <i>e-ku-i-e-ir</i> , <i>e-še-ir</i>)

Imperative

2 s.	<i>ep</i>	(<i>e-ip</i> , <i>e-ku</i> , <i>e-eš</i>)
3 s.	<i>eptu</i>	(<i>e-ip-du</i> ¹⁰⁸)
2 pl.	<i>epten</i>	(<i>e-ip-tin</i> , <i>e-ku-ut-tin</i> , <i>e-ku-ut-te-en</i> , <i>e-eš-te-en</i>)
3 pl.	<i>apantu</i>	(<i>ap-pa-an-du</i> , <i>ap-pa-a-an-du</i> , <i>a-ku-wa-an-du</i> , <i>a-ša-an-du</i>)
Part.	<i>apanz</i>	(<i>ap-pa-an-za</i> , <i>a-aš-ša-an</i> —KUB 22. 70. 1. 49)
Infin.	<i>aswanzi</i>	(<i>a-aš-šu-wa-an-zi</i> —KUB 22. 70. 1. 51)
Supine	<i>eswan</i>	(<i>e-eš-šu-wa-an</i> , <i>i-iš-šu-wa-an</i>)

Rarer Forms

Present

2 s.	<i>epti</i> ¹⁰⁹	(<i>e-ip-ti</i>)
3 s.	<i>aszi</i> ¹⁰⁹	(<i>a-aš-zi</i> , <i>aš-zi</i>)
1 pl.	<i>akweni</i>	(<i>a-ku-e-ni</i> —KBo. 3. 29. 1. 19)
2 pl.	<i>ekwateni</i>	(<i>e-ku-wa-te-ni</i> —KUB 1. 16. 3. 34)
3 pl.	<i>esanzi</i>	(<i>e-ša-an-zi</i>)

Preterit

3 s.	<i>ast</i> ¹¹⁰	(<i>a-aš-ta</i> , <i>aš-ta</i>)
Part.	<i>esanz</i> ¹¹¹	(<i>e-ša-an-za</i> , <i>e-ša-an</i>)
Infin.	<i>epwanzi</i>	(<i>e-ip-pu-u-wa-an-zi</i> —KBo. 3. 3. 3. 30)

c. Other Consonant Stems

445. *karp*-¹¹² 'raise, take, muster', *hark*-¹¹² 'go to ruin', *wek*- 'ask', *warp*- 'wash'.

¹⁰⁸ Cited without reference by Hrozný, SH 171.

¹⁰⁹ Commoner than the alternative form in these verbs.

¹¹⁰ The only form recorded for this verb.

¹¹¹ Commoner than the alternative form in this verb.

¹¹² Forms from equivalent *ya*-stems *karpiya*- and *harkiya*- are not listed here.

Present

1 s.	<i>karpmi</i>	(<i>kar-ap-mi, ú-e-ik-mi</i>)
2 s.	<i>wekti</i>	(<i>ú-e-ik-ti</i>)
3 s.	<i>karpzi</i>	(<i>kar-ap-zi, har-ap-zi, ú-e-ik-zi, wa-ar-ap-zi</i>)
1 pl.	<i>karpweni</i>	(<i>kar-ap-pu-u-e-ni</i> ¹¹³)
2 pl.	<i>harkteni</i>	(<i>har-ak-te-ni</i> —KUB 1. 16. 3. 37)
3 pl.	<i>karpanzi</i>	(<i>kar-pa-an-zi, kar-ap-pa-an-zi, ú-e-ik-kán-zi, wa-ar-pa-an-zi</i>)

Preterit

1 s.	<i>karpun</i>	(<i>kar-ap-pu-un, ú-e-ku-un</i>)
3 s.	<i>karpt</i>	(<i>kar-ap-ta, ka-ra-ap-ta, har-ak-ta, ú-e-ik-ta, wa-ar-ap-ta</i>)
2 pl.	<i>karpten</i>	(<i>kar-ap-tin</i> ¹¹³)
3 pl.	<i>karper</i>	(<i>kar-pir, ú-e-ki-ir</i>)

Imperative

2 s.	<i>wek</i>	(<i>ú-e-ik</i>)
3 s.	<i>karptu</i>	(<i>kar-ap-du, har-ak-du</i>)
2 pl.	<i>karpten</i>	(<i>kar-ap-tin</i> ¹¹³)
3 pl.	<i>karpantu</i>	(<i>kar-pa-an-du</i>)
Part.	<i>karpanz</i>	(<i>kar-pa-an, kar-pa-a-an, har-kán-za, ú-e-kán-ta-an</i>)
Infin.	<i>warpanzi</i>	(<i>wa-ar-pu-u-wa-an-zi</i>)
Verb. N.	<i>wekwar</i>	(<i>ú-e-ku-wa-ar</i> —KUB 21. 27. 2. 29, <i>wa-ar-pu-u-wa-ar</i>)

446. *har(k)*- 'have'.

Present

1 s.	<i>harmi</i>	(<i>har-mi</i>)
2 s.	<i>harsi</i>	(<i>har-ši</i>)
3 s.	<i>harzi</i>	(<i>har-zi</i>)
1 pl.	<i>harweni</i>	(<i>har-u-e-ni, har-ú-e-ni</i>)
2 pl.	<i>harteni</i>	(<i>har-te-e-ni</i> —KUB 14. 12. 2. 11)
3 pl.	<i>harkanzi</i>	(<i>har-kán-zi</i>)

Preterit

1 s.	<i>harkun</i>	(<i>har-ku-un</i>)
2 s.	<i>hart</i>	(<i>har-ta</i>)
3 s.	<i>hart</i>	(<i>har-ta</i>)
3 pl.	<i>harker</i>	(<i>har-kir, har-ki-ir</i>)

¹¹³ Cited by Delaporte, Gramm. 68, without reference.

Imperative

2 s.	<i>hark</i>	(<i>har-ak</i>)
3 s.	<i>hartu</i>	(<i>har-du</i>)
2 pl.	<i>harten</i>	(<i>har-tin</i> —KUB 23. 124. 1. 23)
3 pl.	<i>harkantu</i>	(<i>har-kán-du</i> —VBoT 2. 20)

447. *lenk-* 'swear', *henk-* 'determine', *nenk-* 'rise, be exalted, become intoxicated'.¹¹⁴

Present

3 s.	<i>lenkzi</i>	(<i>li-ik-zi, li-in-ga-zi, hi-in-ik-zi, hi-in-ga-zi, hi-ik-zi, ni-ik-zi</i>)
1 pl.	<i>lenkwani</i>	(<i>li-ku-wa-an-ni</i> —HT 1. 1. 34, <i>hi-in-ku-wa-ni</i> —KUB 17. 28. 1. 11)
3 pl.	<i>lenkanzi</i>	(<i>li-in-kán-zi, hi-in-kán-si, hi-in-ga-an-zi, ni-in-kán-zi</i>)

Preterit

1 s.	<i>lenkun</i>	(<i>li-in-ku-un, hi-in-ku-un</i>)
2 s.	<i>lenkt</i>	(<i>li-ik-ta</i> —KUB 14. 1. 1. 27 ¹¹⁵)
3 s.	<i>lenkt</i>	(<i>li-in-ik-ta, li-in-kat-ta, li-ik-ta, hi-en-ik-ta, hi-ni-ik-ta, hi-in-kat-ta</i>)
1 pl.	<i>lenkwen</i>	(? <i>li-en-ga-u-en</i> —HT 1. 1. 43)
3 pl.	<i>henker</i>	(<i>hi-in-kir, ni-in-ki-e-ir, ni-in-ki-ir</i>)

Imperative

2 s.	<i>lenk</i>	(<i>li-in-ik, li-i-ik, li-in-ki, hi-in-ga, ni-ik, ni-in-ga, ni-in-qa</i>)
3 s.	<i>lenktu</i>	(<i>li-ik-du</i> —KBo. 4. 14. 4. 54)
2 pl.	<i>nenkten</i>	(<i>ni-ik-te-en</i> —KUB 12. 17. 7)
3 pl.	<i>henkantu</i>	(<i>hi-in-kán-du, ni-in-kán-du</i>)
Part.	<i>lenkanz</i>	(<i>li-in-ga-an, ni-in-kán-te-eš</i>)

Heteroclitic Form

3 s.	<i>lenkest</i>	(<i>li-in-ki-eš-ta</i> —KUB 14. 14. 1. 15)
------	----------------	---

Beside *hamanki* 'binds' (of the *hi*-conjugation) there are *mi*-conjugation forms from a stem *hamenk-* (pret. 3 s. *ha-mi-ik-ta*, part. *ha-me-in-kán-za*) and from a contaminated stem *hamank-* (1 s. *ha-ma-an-ga-mi*—KUB 9. 31. 3. 24, 3 pl. *ha-ma-an-kán-zi*, etc.)

¹¹⁴ All these words are usually spelt with *i*, but there is clear evidence for *e* in *lenk-* and *henk-*, both in the verbs themselves and in the related nouns. I assume that *nenk-* falls into the same pattern.

¹¹⁵ Cf. Götze, Madd. 6.

448. *harnenk-* 'destroy', *sarnenk-* 'restore', *starnenk-* 'injure', *nenenk-* 'raise'.¹¹⁶

Present

1 s.	<i>harnenkmi</i>	(<i>har-ni-ik-mi</i> , <i>šar-ni-ik-mi</i>)
2 s.	<i>harnenkti</i>	(<i>har-ni-ik-ti</i>)
3 s.	<i>harnenkzi</i>	(<i>har-ni-ik-zi</i> , <i>šar-ni-ik-zi</i> , <i>iš-tar-ni-ik-zi</i> , <i>ni-ni-ik-zi</i>)
1 pl.	<i>sarnenkweni</i>	(<i>šar-ni-in-ku-e-ni</i> —KUB 22. 57. 1. 4)
2 pl.	<i>harnenkteni</i>	(<i>har-ni-ik-te-ni</i> , <i>šar-ni-ik-te-ni</i>)
3 pl.	<i>sarnenkanzi</i>	(<i>šar-ni-in-kán-zi</i> , <i>šar-ni-en-kán-zi</i> , <i>ni-ni-in-kán-zi</i>)

Preterit

1 s.	<i>harnenkun</i>	(<i>har-ni-in-ku-un</i> , <i>har-ni-ku-un</i> , <i>šar-ni-in-ku-un</i> , <i>ni-ni-in-ku-un</i>)
2 s.	<i>harnenkt</i>	(<i>har-ni-ik-ta</i> ¹¹⁷)
3 s.	<i>harnenkt</i>	(<i>har-ni-ik-ta</i> , <i>šar-ni-ik-ta</i> , <i>ni-ni-ik-ta</i>)
1 pl.	<i>starnenkwen</i>	(<i>iš-tar-ni-in-ku-en</i> —KBo. 3. 45. 1. 4)
3 pl.	<i>harnenker</i>	(<i>har-ni-in-ki-ir</i> , <i>har-ni-in-kir</i> , <i>ni-ni-in-ki-ir</i>)

Imperative

2 s.	<i>harnenk</i>	(<i>har-ni-ik</i> , <i>ni-ni-ik</i>)
3 s.	<i>sarnenktu</i>	(<i>šar-ni-ik-du</i>)
2 pl.	<i>harnenkten</i>	(<i>har-ni-ik-te-en</i> —KUB 4. 1. 1. 35)
3 pl.	<i>harnenkantu</i>	(<i>har-ni-in-kán-du</i> , <i>ni-ni-in-kán-du</i>)
Part.	<i>sarnenkanz</i>	(<i>šar-ni-in-kán-za</i> , <i>šar-ni-in-kán</i>)
Infin.	<i>harnenkwanzi</i>	(<i>har-ni-in-ku-wa-an-zi</i> , <i>ni-ni-in-ku-u-an-zi</i>)
Verb. N.	<i>harnenkwar</i>	(<i>har-ni-in-ku-u-ar</i> —KBo. 3. 4. 1. 36)

Rarer Form

Present		
2 s.	<i>starnenksi</i>	(<i>iš-tar-ni-ik-ši</i> —KBo. 3. 28. 2. 16)

449. *stamas-* 'hear', *kars-* 'cut off', *pnus-* 'ask', *italawes-* 'become bad', *parkwes-* 'become clean'.

Present

1 s.	<i>stasmami</i>	(<i>iš-ta-ma-aš-mi</i> , <i>kar-aš-mi</i> , <i>pu-nu-uš-mi</i>)
2 s.	<i>stamasti</i>	(<i>iš-ta-ma-aš-ti</i> , <i>i-da-la-u-e-eš-ti</i>)

¹¹⁶ The infix is usually written *ni-* or *ni-in-*; but cf. *šar-ni-en-kán-zi* (KBo. 6. 5. 2. 13) and *šar-ni-en-ki-is-ki-mi* (KUB 14. 14. 2. 14). Furthermore *nen* rather than *nin* is suggested by IE.

¹¹⁷ Cited by Hrozný, SH 167 f., without reference.

3 s.	<i>stamaszi</i>	(<i>iš-ta-ma-aš-zi</i> , <i>iš-tam-ma-aš-zi</i> , <i>kar-aš-zi</i> , <i>pu-nu-uš-zi</i> , <i>i-da-la-u-e-eš-zi</i> , <i>pár-ku-e-eš-zi</i>)
1 pl.	<i>pnusweni</i>	(<i>pu-nu-uš-šu-u-e-ni</i> —KUB 22. 70. 1. 31)
2 pl.	<i>stamasteni</i>	(<i>iš-ta-ma-aš-te-ni</i> , <i>iš-ta-ma-aš-ti-ni</i> , <i>i-da-la-a-u-eš-te-ni</i>)
3 pl.	<i>stamasanzi</i>	(<i>iš-ta-ma-aš-ša-an-zi</i> , <i>kar-ša-an-zi</i> , <i>pu-nu-uš-ša-an-zi</i> , <i>i-da-a-la-u-e-eš-ša-an-zi</i>)

Preterit

1 s.	<i>stamasun</i>	(<i>iš-ta-ma-aš-šu-un</i> , <i>pu-nu-uš-šu-un</i> , <i>pár-ku-e-eš-šu-un</i>)
3 s.	<i>stamast</i>	(<i>iš-ta-ma-aš-ta</i> , <i>kar-aš-ta</i> , <i>pu-nu-uš-ta</i> , <i>i-da-la-u-eš-ta</i>)
1 pl.	<i>pnuswen</i>	(<i>pu-nu-uš-šu-u-en</i> —KUB 22. 70. 1.37)
2 pl.	<i>pnusten</i>	(<i>pu-nu-uš-tin</i> —KBo. 4. 8. 2. 17)
3 pl.	<i>stamaser</i>	(<i>iš-ta-ma-aš-šir</i> , <i>kar-še-ir</i>)

Imperative

2 s.	<i>stamas</i>	(<i>iš-ta-ma-aš</i> , <i>iš-dam-ma-aš</i> , <i>kar-aš</i> , <i>pu-nu-uš</i>)
3 s.	<i>stamastu</i>	(<i>iš-ta-ma-aš-du</i> , <i>kar-aš-du</i>)
2 pl.	<i>stamasten</i>	(<i>iš-ta-ma-aš-tin</i> , <i>iš-ta-ma-aš-te-en</i>)
3 pl.	<i>stamasantu</i>	(<i>iš-ta-ma-aš-ša-an-du</i>)
Part.	<i>stamasanz</i>	(<i>iš-ta-ma-aš-ša-an</i> , <i>kar-ša-an-da-an</i>)
Infin.	<i>stamaswanzi</i>	(<i>iš-ta-ma-aš-šu-wa-an-zi</i> —KUB 6. 45. 1. 32)
Verb. N.	<i>karswar</i>	(<i>kar-šu-u-wa-aš</i> —KUB 10. 28. 2. 19)

Rarer Forms

Present

2 s.	<i>stamaszi</i>	(<i>iš-ta-ma-aš-zi</i>)
3 s.	<i>tamasti</i>	(<i>da-ma-aš-ti</i> —KBo. 5. 9. 2. 26)
2 pl.	<i>stamastani</i>	(<i>iš-ta-ma-aš-ta-ni</i>)

d. Vowel Stems

450. *pehute*- 'lead, conduct', *wate*-, *wete*- 'build', *te*- 'say'.¹¹⁸

Present

1 s.	<i>temi</i>	(<i>te-mi</i> , <i>te-e-mi</i>)
2 s.	<i>pehutesi</i>	(<i>pi-e-ḫu-te-ši</i> , <i>te-ši</i> , <i>te-e-ši</i>)

¹¹⁸ *te*- 'say' comes from IH *dei*-, while the other two verbs contain IH *dhē*-; they are grouped together here because their known forms are alike.

3 s.	<i>pehutezi</i>	(<i>pi-e-hu-te-iz-zi, ú-wa-te-iz-zi, ú-e-te-iz-zi, te-iz-zi</i>)
1 pl.	<i>{ wateweni watewani</i>	(<i>[ú]-wa-te-u-e-ni—KUB 14. 15. 3. 38</i>) (<i>ú-wa-te-wa-ni—Bo. 2361. 2. 13</i>)
2 pl.	<i>teteni</i>	(<i>te-e-te-ni—KUB 13. 3. 2. 8</i>)
3 pl.	<i>pehutanzi</i>	(<i>pi-e-hu-da-an-zi, ú-wa-da-an-zi, ú-wa-ta-an-zi, ú-e-da-an-zi</i>)

Preterit

1 s.	<i>pehutenun</i>	(<i>pi-e-hu-te-nu-un, ú-wa-te-nu-un, ú-e-te-nu-un</i>)
2 s.	<i>pehutet</i>	(<i>pi-e-hu-te-it—KBo. 3. 4. 3. 78</i>)
3 s.	<i>pehutet</i>	(<i>pi-e-hu-te-it, ú-wa-te-it, ú-e-te-it, te-it, ti-e-it</i>)
1 pl.	<i>watewen</i>	(<i>ú-wa-te-u-en—KUB 23. 21. 3. 7</i>)
3 pl.	<i>pehuter</i>	(<i>pi-hu-te-ir, pi-e-hu-te-ir, ú-wa-te-ir, ú-e-te-ir</i>)

Imperative

2 s.	<i>pehute</i>	(<i>pi-e-hu-te, ú-wa-ti, ú-wa-te</i>)
3 s.	<i>watetu</i>	(<i>ú-wa-te-id-du—KUB 14. 3. 3. 2</i>)
2 pl.	<i>pehuteten</i>	(<i>pi-e-hu-te-tin, ú-wa-te-tin, ú-wa-te-it-tin, te-it-te-en, te-e-tin</i>)
3 pl.	<i>watantu</i>	(<i>ú-wa-da-an-du—KUB 23. 95. 19</i>)
Part.	<i>pehutanz</i>	(<i>pi-e-hu-da-an, ú-e-da-an-te-eš</i>)

Forms of the *hi*-Conjugation [461]

Present

1 s. ¹	<i>wetahi</i>	(<i>ú-e-da-aḥ-ḥi—KUB 22. 25. 1. 19</i>)
1 ^{pl} _{pl.}	<i>watumeni</i>	(<i>ú-wa-tu₄-um-me-e-ni—Bo. 2365. 2. 12</i>)

Preterit

1 s.	<i>wetahun</i>	(<i>ú-e-da-aḥ-ḥu-un</i>)
3 s.	<i>wetas</i>	(<i>ú-e-da-aš</i>)
1 pl.	<i>wetumen</i>	(<i>ú-e-du-me-en, ú-e-tum-me-en</i>)
2 pl.	<i>wetaten</i>	(<i>ú-e-ta-at-te-en, ú-i-ta-at-te-en</i>)
Infin.	<i>wetumanzi</i>	(<i>ú-e-tum-ma-an-zi</i>)
Verb. N.	<i>wetumar</i>	(<i>ú-e-tum-mar—KUB 9. 15. 3. 11</i>)

451. *pai-* 'go'.

Present

1 s.	<i>paimi</i>	(<i>pa-a-i-mi, pa-i-mi</i>)
2 s.	<i>paishi</i>	(<i>pa-a-i-ši, pa-i-ši</i>)

3 s.	<i>paizi</i>	(<i>pa-iz-zi, pa-a-iz-zi</i>)
1 pl.	<i>paiweni</i>	(<i>pa-a-i-u-e-ni, pa-i-u-e-ni</i>)
2 pl.	<i>paiteni</i>	(<i>pa-it-te-ni</i> ¹¹⁹)
3 pl.	<i>panzi</i>	(<i>pa-a-an-zi, pa-an-zi</i>)
Preterit		
1 s.	<i>pauu</i>	(<i>pa-a-un</i>)
3 s.	<i>pait</i>	(<i>pa-it, pa-a-it, pa-i-it, pa-a-i-ta, pa-it-ta</i>)
1 pl.	<i>pawen</i>	(<i>pa-a-u-en</i> —KUB 23. 21. 2. 27, 3. 4)
3 pl.	<i>paer</i>	(<i>pa-a-ir</i>)

Imperative

2 s.	<i>pa</i>	(<i>pa-a</i> ¹²⁰)
3 s.	<i>paitu</i>	(<i>pa-id-du, pa-it-tu</i>)
2 pl.	<i>paiten</i>	(<i>pa-it-tin</i> ¹²⁰)
3 pl.	<i>pantu</i>	(<i>pa-a-an-du</i> —KBo. 3. 1. 2. 13)
Part.	<i>panz</i>	(<i>pa-a-an-za</i>)
Infin.	<i>pawanzi</i>	(<i>pa-a-u-wa-an-zi</i> —KBo. 6. 6. 1. 30)
Verb. N.	<i>pawar</i>	(<i>pa-a-u-ar</i> —KBo. 1. 35. 4)

Rarer Forms

Present

2 s.	<i>paiti</i>	(<i>pa-it-ti</i> —KBo. 5. 3. 3. 23)
1 pl.	<i>paiwani</i>	(<i>pa-a-i-u-wa-ni, pa-a-i-wa-ni, pa-i-u-wa-ni, pa-i-wa-ni</i>)
2 pl.	<i>paitani</i>	(? <i>pa-it-ta-ni</i> —KBo. 3. 23. 2. 16)

Preterit

1 s.	<i>pawun</i>	(? <i>pa-a-u-un</i>)
1 pl.	<i>paiwen</i>	(<i>pa-a-i-u-en, pa-i-u-u-en</i>)

452. *arnu-* 'bring', *nuntarnu-* 'exert oneself', *pahsnu-* 'protect', *parkunu-* 'purify', *salanu-* 'make great, think well of', *wahnu-* 'turn'.

Present

1 s.	<i>arnumi</i>	(<i>ar-nu-mi, pár-ku-nu-mi</i>)
2 s.	<i>arnusi</i>	(<i>ar-nu-ši, nu-un-tar-nu-ši, pár-ku-nu-ši, šal-la-nu-uš-ši, wa-aḥ-nu-ši</i>)
3 s.	<i>arnuzi</i>	(<i>ar-nu-zi, ar-nu-uz-zi, pár-ku-nu-zi, pár-ku-nu-uz-zi, wa-aḥ-nu-uz-zi</i>)
1 pl.	<i>arnumeni</i>	(<i>ar-nu-um-me-ni</i>)
2 pl.	<i>nuntarnuteni</i>	(<i>nu-un-tar-nu-ut-te-ni, nu-un-tar-nu-ut-te-e-ni, wa-aḥ-nu-ut-te-ni</i>)

¹¹⁹ Cited by Hrozný, SH 162, and Delaporte, Gramm. 61, without reference.

¹²⁰ Cited by Sommer, BoSt. 4. 1 (with query in the case of *pa-a*), and by Delaporte, Gramm. 61, both without reference.

3 pl.	<i>arnwanzi</i>	(<i>ar-nu-an-zi</i> , <i>ar-nu-wa-an-zi</i> , <i>wa-aḥ-nu-wa-an-zi</i>)
Preterit		
1 s.	<i>arnunun</i>	(<i>ar-nu-nu-un</i> , <i>šal-la-nu-nu-un</i> , <i>wa-aḥ-nu-nu-un</i>)
2 s.	<i>salanut</i>	(<i>šal-la-nu-ut</i>)
3 s.	<i>arnut</i>	(<i>ar-nu-ut</i> , <i>pár-ku-nu-ut</i> , <i>wa-aḥ-nu-ut</i>)
1 pl.	<i>wahnumen</i>	(<i>wa-aḥ-nu-um-me-en</i>)
3 pl.	<i>arnwer</i>	(<i>ar-nu-e-ir</i> , <i>ar-nu-ir</i> , <i>pa-aḥ-ša-nu-ir</i> , <i>pa-aḥ-ḥa-aš-ša-nu-ir</i> , <i>wa-aḥ-nu-e-ir</i> , <i>wa-aḥ-nu-ir</i>)
Imperative		
2 s.	<i>arnut</i>	(<i>ar-nu-ut</i> , <i>pár-ku-nu-ut</i>)
3 s.	<i>arnutu</i>	(<i>ar-nu-ud-du</i> , <i>pár-ku-nu-ud-du</i>)
2 pl.	<i>pahsnuten</i>	(<i>pa-aḥ-ḥa-aš-nu-ut-te-en</i>)
3 pl.	<i>arnwantu</i>	(<i>ar-nu-an-du</i>)
Part.	<i>parkunwanz</i>	(<i>pár-ku-nu-wa-an-za</i> , <i>šal-la-nu-wa-an-za</i>)
Infin.	<i>pahsnumanzi</i>	(<i>pa-aḥ-ḥa-aš-ša-nu-ma-an-zi</i> , <i>wa-aḥ-nu-ma-an-zi</i> , <i>wa-aḥ-nu-um-ma-an-zi</i>)
Verb. N.	<i>arnumar</i>	(<i>a-ar-nu-mar</i>)

Rarer Forms

Present		
2 s.	<i>arnuti</i>	(<i>ar-nu-ut-ti</i>)
3 pl.	<i>sanhunzi</i>	(<i>ša-an-ḥu-un-zi</i> —KBo. 4. 2 1. 11)
Part.	<i>sanhunz</i>	(<i>ša-an-ḥu-un-da</i> —VBoT 24. 1. 17, 2. 8)
Verb. N.	<i>wahnuwar</i>	(<i>u-wa-aḥ-nu-u-wa-ar</i>)

e. Thematic Verbs

453. *taske-* 'take', *peske-* 'give', *taleske-* 'call upon, invoke', *uske-* 'see', *tarske-* 'declare', *aneske-* 'perform', *akuske-* 'drink, give to drink', *areske-* 'consult an oracle', *zke-* 'set', *azke-* 'eat'.

Present

1 s.	<i>taskemi</i>	(<i>da-aš-ki-mi</i> , <i>pt-eš-ki-mi</i> , <i>tar-ši-ki-mi</i>)
2 s.	<i>taskesi</i>	(<i>da-aš-ki-ši</i> , <i>tar-ši-ki-ši</i>)
3 s.	<i>taskezi</i>	(<i>da-aš-ki-iz-zi</i> , <i>pt-eš-ki-iz-zi</i> , <i>tar-aš-ki-iz-zi</i> , <i>tar-ši-ki-iz-zi</i>)
1 pl.	<i>peskaweni</i>	(<i>pt-eš-ga-u-e-ni</i>)
2 pl.	<i>tasketeni</i>	(<i>da-aš-ki-it-te-ni</i> , <i>da-aš-ki-it-te-ni</i>)

3 pl.	<i>peskanzi</i>	(<i>pí-eš-kán-zi, tar-aš-kán-zi, tar-ši-kán-zi, an-ni-eš-kán-zi</i>)
	Preterit	
1 s.	<i>uskenun</i>	(<i>uš-ki-nu-un, a-an-ni-iš-ki-nu-un, ak-ku-uš-ki-nu-un, a-ri-iš-ki-e-nu-un</i>)
2 s.	<i>taskes</i>	(<i>da-aš-ki-eš, zi-ik-ki-eš</i>)
3 s.	<i>tasket</i>	(<i>da-aš-ki-it, pí-eš-ki-it, zi-ik-ki-it</i>)
1 pl.	<i>tarskawen</i>	(<i>tar-ši-ga-u-e-en—KBo. 3. 19. 2. 19</i>)
2 pl.	<i>{tasketen¹²¹</i> <i>{taskaten¹²¹</i>	
3 pl.	<i>tasker</i>	(<i>da-aš-ki-e-ir, pí-eš-kir, an-ni-eš-ki-ir</i>)
	Imperative	
2 s.	<i>peske</i>	(<i>pí-eš-ki, uš-ki, ak-ku-uš-ki</i>)
3 s.	<i>akusketu</i>	(<i>ak-ku-uš-ki-id-du</i>)
2 pl.	<i>tasketen</i>	(<i>ta-aš-ki-it-tin, ak-ku-uš-ki-it-te-en, za-aḫ-ḫi-iš-ki-it-tin</i>)
3 pl.	<i>akuskantu</i>	(<i>ak-ku-uš-kán-du</i>)
Supine	<i>taskewan</i>	(<i>da-a-aš-ki-u-wa-an, pí-eš-ki-u-wa-an, pí-iš-ki-u-an, a-zi-ki-wa-an</i>)
Verb. N.	<i>taskewar¹²²</i>	

Rarer Forms

	Present	
1 pl.	<i>taleskewani</i>	(<i>tal-li-eš-ki-u-wa-ni, ḫu-u-it-ti-ya-an-ni-eš-ki-u-wa-ni</i>)
2 pl.	<i>taskatani</i>	(<i>da-aš-ga-te-e-ni—KUB 13. 3. 3. 6, uš-ka-te-ni—KBo. 3. 33. 2. 11</i>)
	Preterit	
2 s.	<i>tarsket</i>	(<i>tar-aš-ki-it—KBo. 3. 16. 2. 6</i>)
1 pl.	<i>tarskewen</i>	(<i>tar-aš-ki-u-en—KBo. 3. 16. 2. 15</i>)
	Imperative	
2 pl.	<i>taskaten</i>	(<i>da-a-aš-ga-te-en—KUB 13. 3. 3. 5</i>)

454. *wa/e* 'come', *tekusa/e* 'show', *wasae* 'clothe', *kapuwa/e* 'count'.

Present

1 s.	<i>wami</i>	(<i>ú-wa-mi, ú-wa-am-mi, te-ik-ku-uš-ša-mi</i>)
2 s.	<i>wasi</i>	(<i>ú-wa-ši, wa-aš-ša-a-ši</i>)

¹²¹ Delaporte, Gramm. 71, cites pret. 2 pl. "*daškitten*" and "*dašgatten*" without reference.

¹²² Cited without reference by Friedrich, ZDMG 76. 173, and Delaporte, Gramm. 71, as "*daškiwar*".

3 s.	<i>wezi</i>	(<i>ú-iz-zi, wa-aš-še-iz-zi</i>)
2 pl.	<i>wateni</i>	(<i>ú-wa-at-te-e-ni</i> —KUB 14. 12. 2. 10)
3 pl.	<i>wanzi</i>	(<i>ú-wa-an-zi, wa-aš-ša-an-zi</i>)

Preterit

1 s.	<i>wanun</i>	(<i>ú-wa-nu-un</i>)
2 s.	<i>wet</i>	(<i>ú-it</i>)
3 s.	<i>wet</i>	(<i>ú-it, te-ik-ku-uš-ši-e-it</i>)
1 pl.	<i>wawen</i>	(<i>ú-wa-u-en</i>)
2 pl.	<i>waten</i>	(<i>ú-wa-at-tin</i> —KUB 14. 14. 1. 32)
3 pl.	<i>wer</i>	(<i>ú-e-ir</i>)

Imperative

2 s.	<i>kapuwe</i>	(<i>ka-pu-u-i</i> —KBo. 3. 28. 2. 13)
3 s.	<i>wetu</i>	(<i>ú-id-du, kap-pu-u-id-du</i>)
2 pl.	<i>waten</i>	(<i>ú-wa-at-te-en, ú-wa-at-tin</i>)
3 pl.	<i>wantu</i>	(<i>ú-wa-an-du</i>)

Part.	<i>wanz</i>	(<i>ú-wa-an-za, wa-aš-ša-an-za</i>)
Infin.	<i>wawanzi</i>	(<i>ú-wa-u-an-zi, ú-wa-u-wa-an-zi</i>)
Verb. N.	<i>kapuwawar</i>	(<i>kap-pu-u-wa-u-wa-ar</i> ¹²³)

Rarer Forms

Present		
2 s.	<i>kapuwesi</i>	(<i>ka-pu-u-e-ši</i>)
3 pl.	<i>wenzi</i>	(<i>ú-en-zi</i>)

Imperative		
3 s.	<i>watu</i>	(<i>ú-wa-du</i>)
2 pl.	<i>weten</i>	(<i>ú-it-te-en</i>)

455. *ya*- 'make'.

Present		
1 s.	<i>yami</i>	(<i>i-ya-mi</i>)
2 s.	<i>yese</i>	(<i>i-ya-ši, i-e-ši</i>)
3 s.	<i>yezi</i>	(<i>i-ya-zi, i-e-iz-zi, i-ya-az-zi, i-iz-zi, i-e-zi, i-ya-iz-zi</i>)
1 pl.	<i>yaweni</i>	(<i>i-ya-u-e-ni</i>)
2 pl.	<i>yateni</i>	(<i>i-ya-at-te-ni</i>)
3 pl.	<i>yenzi</i>	(<i>i-ya-an-zi, i-en-zi, i-e-en-zi</i>)

Preterit

1 s.	<i>yanun</i>	(<i>i-ya-nu-un</i>)
2 s.	<i>yet</i>	(<i>i-ya-at</i> —KUB 6. 45. 3. 30)
3 s.	<i>yet</i>	(<i>i-ya-at, i-e-it, i-ya-a-at</i> —KBo. 3. 7. 1. 18)

¹²³ This form may equally well be ascribed to the stem *kapuwa(e)*- [297].

1 pl.	<i>yawen</i>	(<i>i-ya-u-e-en</i>)
2 pl.	<i>yaten</i>	(<i>i-ya-at-tin</i>)
3 pl.	<i>yer</i>	(<i>i-e-ir</i>)

Imperative

1 s.	<i>yahu</i>	(<i>i-ya-al-lu</i>)
2 s.	<i>ya</i>	(<i>i-ya</i>)
3 s.	<i>yetu</i>	(<i>i-ya-du, i-e-id-du</i>)
3 pl.	<i>yentu</i>	(<i>i-ya-an-du, i-en-du</i>)
Part.	<i>yanz</i>	(<i>i-ya-an-za</i>)
Infin.	<i>yawanzi</i>	(<i>i-ya-u-wa-an-zi</i> —KUB 20. 80. 3. 5)
Verb. N.	<i>yawar</i>	(<i>i-ya-u-wa-[ar]</i> —KBo. 1. 31. 2. 13, f.)

456. *wemiya-* 'find', *zahiya-* 'fight', *shiya-* 'bind', *taliya-* 'leave',
huliya- 'smite', *karpiya-* 'raise, muster'.

Present

1 s.	<i>wemiyami</i>	(<i>ú-e-mi-ya-mi, za-aḥ-ḥi-ya-mi</i>)
2 s.	<i>wemiyasi</i>	(<i>ú-e-mi-ya-ši, za-aḥ-ḥi-ya-ši</i>)
3 s.	<i>wemiyezi</i>	(<i>ú-e-mi-ya-zi, ú-e-mi-ya-az-zi, ú-e-mi-iz-zi, ú-e-mi-az-zi, ú-e-mi-zi, ú-e-mi-e-iz-zi, ú-e-mi-e-zi, tal-li-ya-zi, ḥu-u-ul-li-ya-az-zi</i>)
1 pl.	<i>zahi yaweni</i>	(<i>za-aḥ-ḥi-ya-u-e-ni</i>)
2 pl.	<i>shiyateni</i>	(<i>iš-ḥi-ya-at-te-e-ni</i>)
3 pl.	<i>wemiyanzi</i>	(<i>ú-e-mi-ya-an-zi, za-aḥ-ḥi-ya-an-zi</i>)

Preterit

1 s.	<i>wemiyannun</i>	(<i>ú-e-mi-ya-nu-un, za-aḥ-ḥi-ya-nu-un</i>)
2 s.	<i>taliyet</i>	(<i>da-a-li-ya-at</i> —KUB 1. 6. 3. 16)
3 s.	<i>wemiyet</i>	(<i>ú-e-mi-ya-at, ú-e-mi-it, za-aḥ-ḥi-ya-at, iš-ḥi-ya-at, ta-li-ya-at, ḥu-ul-li-ya-at, ḥu-ul-li-i-e-it</i>)
1 pl.	<i>wemiyawen</i>	(<i>ú-e-mi-ya-u-en, da-a-li-ya-u-en</i>)
2 pl.	<i>wemiyaten</i>	(<i>ú-e-mi-ya-tin</i>)
3 pl.	<i>wemiyer</i>	(<i>ú-e-mi-i-e-ir, ú-e-mi-ir, ḥu-ul-li-e-ir</i>)

Imperative

2 s.	<i>karpiya</i>	(<i>kar-ap-pi-ya</i>)
2 pl.	<i>zahi yaten</i>	(<i>za-aḥ-ḥi-ya-at-tin, kar-ap-pi-ya-at-tin</i>)
3 pl.	<i>shiyantu</i>	(<i>iš-ḥi-ya-an-du</i>)
Part.	<i>shiyanz</i>	(<i>iš-ḥi-ya-an-za</i>)
Infin.	<i>wemiyawanzi</i>	(<i>ú-e-mi-ya-u-wa-an-zi, za-aḥ-ḥi-ya-u-wa-an-zi</i>)

Verb. N. *shiyawar* (*is-ḥi-ya-u-wa-a[r]*—KBo. 1. 38. 2. 5, 7)

Rarer Forms

Present

1 s.	<i>parsiyahi</i>	(<i>pár-ši-ya-aḥ-ḥi</i>)
2 s.	<i>nahsariyati</i>	(<i>na-aḥ-ša-ri-ya-at-ti</i> , <i>im-me-at-ti</i> , <i>ka-ru-uš-ši-ya-at-ti</i>)
3 pl.	<i>haliyenzi</i>	(<i>ḥa-li-en-zi</i>)

Preterit

1 s.	<i>hapariyenun</i>	(<i>ḥa-ap-pa-ri-e-nu-un</i> , <i>i-mi-e-nu-un</i>)
------	--------------------	--

457. *hatra(e)*- 'write', *tarma(e)*- 'delimit', *tarkuma(e)*- 'interpret', *hanta(e)*- 'establish', *suwa(e)*- 'press out', *irha(e)*- 'finish'.

Present

1 s.	<i>hatrami</i>	(<i>ḥa-at-ra-a-mi</i> , <i>ḥa-at-ra-mi</i> , <i>tar-ma-a-mi</i>)
2 s.	<i>hatrasi</i>	(<i>ḥa-at-ra-a-ši</i> , <i>ḥa-an-da-a-ši</i>)
3 s.	<i>hatraezi</i>	(<i>ḥa-at-ra-a-iz-zi</i> , <i>ḥa-at-ra-iz-zi</i> , <i>tar-ma-a-iz-zi</i> , <i>tar-ma-iz-zi</i>)
1 pl.	<i>hatraweni</i>	(<i>ḥa-at-ra-a-u-ni</i> , <i>tar-ma-a-u-e-ni</i>)
2 pl.	<i>tarkumateni</i>	(<i>tar-kum-ma-at-te-ni</i>)
3 pl.	<i>hatranzi</i>	(<i>ḥa-at-ra-a-an-zi</i> , <i>ḥa-an-da-a-an-zi</i> , <i>ḥa-an-da-an-zi</i>)

Preterit

1 s.	<i>hatranun</i>	(<i>ḥa-at-ra-a-nu-un</i> , <i>tar-ma-a-nu-un</i> , <i>ḥa-an-da-nu-un</i> , <i>ḥa-an-ta-nu-un</i>)
2 s.	<i>hatraes</i>	(<i>ḥa-at-ra-a-eš</i> , <i>tak-šu-la-a-eš</i>)
3 s.	<i>hatraet</i>	(<i>ḥa-at-ra-a-it</i> , <i>ḥa-at-ra-it</i> , <i>ḥa-an-da-a-it</i> , <i>ḥa-an-da-it</i>)
1 pl.	<i>hantawen</i>	(<i>ḥa-an-da-a-u-en</i>)
2 pl.	<i>suwaten</i>	(<i>šu-wa-at-te-en</i>)
3 pl.	<i>hatraer</i>	(<i>ḥa-at-ra-a-ir</i> , <i>ḥa-an-da-ir</i>)

Imperative

2 s.	<i>hatrai</i> or <i>hatrae</i>	(<i>ḥa-at-ra-a-i</i> , <i>ḥa-an-da-a-i</i> , <i>tar-kum-ma-i</i>)
3 s.	<i>hantaetu</i>	(<i>ḥa-an-ta-id-du</i>)
2 pl.	<i>suwaten</i>	(<i>šu-wa-at-te-en</i> , <i>šu-u-wa-at-tin</i>)
3 pl.	<i>hantantu</i>	(<i>ḥa-an-ta-an-du</i> , <i>šu-u-wa-an-du</i>)
Part.	<i>hantanz</i>	(<i>ḥa-an-da-an-za</i> , <i>ḥa-an-da-a-an-za</i> , <i>šu-u-wa-an-za</i>)
Infin.	<i>irhawanzi</i>	(<i>ir-ḥa-a-u-wa-an-zi</i>)
Verb. N.	<i>irhawar</i>	(<i>ir-ḥa-a-u-wa-ar</i>)

Heteroclitic forms like *kapuwesi*, *suwyezi*, and *hantai* (3 s.) scarcely call for treatment.

2. The *hi*-Conjugation

a. Class I, Consonant Stems

458. *sak*- 'know', *ar*- 'arrive', *krap*- 'fressen', *asas*- 'beset, set, found'.

Present		
1 s.	<i>sakhi</i>	(<i>ša-ag-ga-aḥ-ḥi</i> , <i>ša-a-ag-ga-aḥ-ḥi</i> , <i>a-ša-aš-ḥi</i>)
2 s.	<i>sakti</i>	(<i>ša-ak-ti</i> , <i>ša-a-ak-ti</i> , <i>a-ar-ti</i>)
3 s.	<i>saki</i>	(<i>ša-ak-ki</i> , <i>a-ri</i> , <i>ka-ra-a-pt</i> , <i>a-ša-a-ši</i> , <i>a-ša-ši</i>)
1 pl.	<i>sekweni</i>	(<i>še-ik-ku-e-ni</i> —KBo. 5. 3. 2. 71)
2 pl.	<i>sekteni</i>	(<i>še-ik-te-ni</i> , <i>e-ir-te-ni</i>)
3 pl.	<i>{ krepanzi</i> <i>sakanzi</i>	(<i>ka-ri-pa-an-zi</i> , <i>a-še-ša-an-zi</i> , <i>a-ši-ša-an-zi</i>) (<i>ša-kán-zi</i> , <i>a-ra-an-zi</i> , <i>ka-ra-pa-an-zi</i>)
Preterit		
1 s.	<i>arhun</i>	(<i>a-ar-aḥ-ḥu-un</i> , <i>a-ar-ḥu-un</i> , <i>ar-ḥu-un</i> , <i>a-ša-aš-ḥu-un</i>)
2 s.	<i>sakta</i>	(<i>ša-ak-ta</i>)
3 s.	<i>{ sekt</i>	(<i>še-ik-ta</i> , <i>ir-ta</i> , <i>a-še-eš-ta</i>)
	<i>art</i>	(<i>a-ar-ta</i> , <i>a-ša-aš-ta</i>)
	<i>saks</i>	(<i>ša-ak-ki-iš</i> , <i>a-ar-aš</i>)
1 pl.	<i>sekwen</i>	(<i>še-ik-ku-e-en</i> , <i>e-ru-u-en</i> , <i>ir-u-en</i>)
2 pl.	<i>krepten</i>	(<i>kar-r[i]-ip-tin</i> —KBo. 3. 1. 2. 73)
3 pl.	<i>seker</i>	(<i>še-ik-ki-ir</i> , <i>ka-ri-e-pt-ir</i> , <i>a-še-šir</i> , <i>a-še-še-ir</i> , <i>a-še-e-še-ir</i>)
Imperative		
2 s.	<i>{ sak</i>	(<i>ša-a-ak</i>)
	<i>saki</i>	(<i>ša-ki</i> —KUB 21. 1. 3. 75)
3 s.	<i>saktu</i>	(<i>ša-a-ak-du</i> —KBo. 5. 3. 1. 9)
2 pl.	<i>sekten</i>	(<i>še-ik-tin</i> , <i>ši-ik-tin</i> , <i>ir-te-in</i> , <i>a-še-eš-te-en</i>)
3 pl.	<i>krepan<u>tu</u></i>	(<i>ka-ri-pa-an-du</i> —KBo. 6. 34. 3. 23)
Part.	<i>sekanz</i>	(<i>še-ik-kán-za</i> , <i>a-še-ša-an-te-eš</i>)
Inf.	<i>krepuwanzi</i>	(<i>ka-ri-pu-wa-an-zi</i> , <i>a-še-šu-wa-an-zi</i>)
Supine	<i>krepuwan</i>	(<i>ka-ri-pu-u-wa-an</i> —KBo. 3. 1. 1. 21)

Rarer Forms

Preterit		
3 s.	<i>kreps</i>	(<i>ka-ri-pa-aš</i> —KUB 5. 7. 1. 34)
Imperative		
2 pl.	<i>arten</i>	(<i>a-ar-tin</i> —KUB 23. 72. 2. 28)

459. *spant-* 'pour a libation', *lahu-* 'pour' [54b], *pahs-* 'protect', *ak-* 'die', *wak-* 'bite'.

Present		
1 s.	<i>spanthi</i>	(<i>ši-pa-an-taḥ-ḥi</i> , <i>ši-pa-an-da-aḥ-ḥi</i> , <i>la-ḥu-uḥ-ḥi</i> , <i>pa-aḥ-ḥa-aš-ḥi</i>)
2 s.	<i>pahsti</i>	(<i>pa-aḥ-ḥa-aš-ti</i>)
3 s.	<i>spanti</i>	(<i>ši-pa-an-ti</i> , <i>ši-ip-pa-an-ti</i> , <i>la-a-ḥu-i</i> , <i>a-ki</i>)
1 pl.	<i>akweni</i>	(<i>ak-ku-e-ni</i> , <i>ak-ku-u-e-ni</i>)
2 pl.	<i>pahsteni</i>	(<i>pa-aḥ-ḥa-aš-te-ni</i> , <i>a-ak-te-ni</i>)
3 pl.	<i>spantanzi</i>	(<i>ši-pa-an-da-an-zi</i> , <i>ši-ip-pa-an-da-an-zi</i> , <i>la-a-ḥu-u-wa-an-zi</i> , <i>la-a-ḥu-u-an-zi</i> , <i>pa-aḥ-ša-an-zi</i>)
Preterit		
1 s.	<i>spanthun</i>	(<i>ši-pa-an-da-aḥ-ḥu-un</i> , <i>ši-pa-an-ta-aḥ-ḥu-un</i>)
2 s.	<i>pahsta</i>	(<i>pa-aḥ-ḥa-aš-ta</i>)
3 s.	<i>aks</i>	(<i>ak-ki-iš</i> , <i>a-ak-ki-iš</i> , <i>ag-ga-aš</i>)
1 pl.	<i>wakwen</i>	(<i>wa-a-ku-e-en</i>)
2 pl.	<i>pahsten</i>	(<i>pa-aḥ-ḥa-aš-te-en</i> , <i>a-ak-te-en</i>)
3 pl.	<i>pahser</i>	(<i>pa-aḥ-šir</i> , <i>a-kir</i> , <i>a-ki-ir</i>)
Imperative		
1 s.	<i>akalu</i>	(<i>ak-kal-lu</i>)
2 s.	<i>pahsi</i>	(<i>pa-aḥ-ši</i>)
3 s.	<i>aktu</i>	(<i>ag-du</i> , <i>iš-tab-du</i>)
2 pl.	<i>lahuten</i>	(<i>la-aḥ-ḥu-tin</i>)
3 pl.	<i>pahsantu</i>	(<i>pa-aḥ-ša-an-du</i> , <i>ak-kán-du</i>)
Part.	<i>spantanz</i>	(<i>ši-pa-an-ta-an-za</i> , <i>a-kán-ta-aš</i>)
Infin.	<i>spantwanzi</i>	(<i>ši-pa-an-du-wa-an-zi</i> , <i>ši-pa-an-tu-u-wa-an-zi</i>)
Verb. N.	<i>spantwar</i>	(<i>ši-ip-pa-an-du-ar</i> —KBo. 1. 42. 4. 44)

Rarer Forms

Present		
3 s.	<i>spantai</i>	(<i>ši-ip-pa-an-da-i</i> —HT 5. 20)
	<i>spanzi</i>	(<i>ši-ip-pa-an-zi</i> —KUB 2. 8. 2. 34)
3 pl.	<i>spantienzi</i>	(<i>ši-ip-pa-an-tin-zi</i> —KBo. 4. 13. 5. 12)
Preterit		
3 s.	<i>akt</i>	(<i>ak-ta</i> —KUB 13. 3. 3. 35)
3 pl.	<i>eker</i>	(<i>e-ki-ir</i> , <i>e-kir</i>)
Imperative		
3 s.	<i>aku</i>	(<i>a-ku</i>)

460. *italawah-* 'make bad', *supiyah-* 'make clean', *taswah-* 'make blind', *maniyah-* 'appoint, govern', *kururiyah-* 'make hostile', *watarnah-* 'communicate', *newah-* 'renew', *alapah-* 'spit'(?).¹²⁴

Present

1 s.	<i>italawahmi</i>	(<i>i-da-la-u-wa-ah-mi</i> , <i>šu-up-pti-ya-ah-mi</i> , <i>ma-a-ni-ya-ah-mi</i>)
2 s.	<i>italawahti</i>	(<i>i-da-la-wa-ah-ti</i> , <i>i-da-a-la-a-u-wa-ah-ti</i> , <i>ma-ni-ya-ah-ti</i>)
3 s.	<i>supiyahi</i>	(<i>šu-up-pti-ya-ah-ḥi</i> , <i>šu-up-pti-ah-ḥi</i> , <i>šu-up-ya-ah-ḥi</i> , <i>wa-a-tar-na-ah-ḥi</i> , <i>da-šu-wa-ah-ḥi</i>)
1 pl.	<i>tasuwahweni</i>	(<i>ta-šu-wa-ah-ḥu-u-e-ni</i> —Bo. 2365. 2. 11)
3 pl.	<i>supiyahanzi</i>	(<i>šu-up-pti-ya-ah-ḥa-an-zi</i> , <i>ma-ni-ya-ah-ḥa-an-zi</i>)

Preterit

1 s.	<i>italawahun</i>	(<i>i-da-la-wa-ah-ḥu-un</i> , <i>i-da-la-u-wa-ah-ḥu-un</i> , <i>šu-up-pti-ya-ah-ḥu-un</i>)
3 s.	<i>{maniyahs kururiyaht</i>	(<i>ma-ni-ya-ah-ḥi-iš</i> , <i>wa-tar-na-ah-ḥi-iš</i>) (<i>ku-u-ru-ri-ya-ah-ta</i> , <i>ku-ru-ri-ya-ah-ta</i>)
1 pl.	<i>kururiyahwen</i>	(<i>ku-ru-ri-ah-ḥu-u-en</i>)
3 pl.	<i>kururiyaher</i>	(<i>ku-ru-ri-ya-ah-ḥi-ir</i> , <i>ma-ni-ya-ah-ḥi-ir</i>)

Imperative

2 s.	<i>alapah</i>	(<i>al-la-pa-ah</i> —KUB 9. 34. 3. 22, 23)
3 pl.	<i>newahantu</i>	(<i>ne-wa-ah-ḥa-an-du</i> —KUB 13. 2. 2. 15)
Part.	<i>italawahanz</i>	(<i>i-da-la-wa-ah-ḥa-an-te-eš</i> , <i>ku-u-ru-ri-ah-ḥa-an</i>)
Infin.	<i>watarnahwanzi</i>	(<i>wa-tar-na-ah-ḥu-u-wa-an-zi</i>)

Rarer Forms

Present

3 s.	<i>italawahzi</i>	(<i>i-da-la-wa-ah-zi</i> , <i>ku-ru-ri-ya-ah-zi</i> , <i>da-šu-wa-ah-zi</i>)
------	-------------------	--

Preterit

2 pl.	<i>maniyahaeten</i>	(<i>ma-ni-[y]a-ah-ḥa-it-tin</i> —KUB 26. 71. 1. 22)
Infin.	<i>ku-ru-ri-e-iḥ-ḥu-an-zi</i>	(KUB 1. 10. 3. 10 + KBo. 3. 6. 3. 29)

¹²⁴ These verbs are included here rather than with the *mi*-verbs since they follow the *hi*-conjugation in part, and probably conformed to it completely in prehistoric times.

b. Class II, *a*-stems

461. *ta-* 'take', *mema-* 'say', *sara-* 'divide, break', *tarna-* 'put in', *kwen-*, 'strike', *halzesa-* 'call', *tala-* 'leave, let go', *yana-* 'go', *una-* 'lead, drive hither', *esa-* 'set, prepare', *peyana-* 'give'.

Present

1 s.	<i>tahi</i>	(<i>da-aḥ-ḥi, me-ma-aḥ-ḥi, tar-na-aḥ-ḥi</i>)
2 s.	<i>tati</i>	(<i>da-at-ti, ta-at-ti, me-ma-at-ti, šar-ra-at-ti</i>)
3 s.	<i>tai</i>	(<i>da-a-i, me-ma-i, ta-la-a-i, šar-ra-i</i>)
1 pl.	<i>tumeni</i>	(<i>tum-me-ni, tar-nu-um-me-ni, tar-nu-um-me-e-ni</i>)
2 pl.	<i>tateni</i>	(<i>da-at-te-ni, da-at-te-e-ni, ku-en-na-at-te-ni</i>)
3 pl.	<i>tanzi</i>	(<i>da-an-zi, da-a-an-zi, me-ma-an-zi, šar-ra-an-zi</i>)

Preterit

1 s.	<i>tahun</i>	(<i>da-aḥ-ḥu-un, da-a-aḥ-ḥu-un, me-ma-aḥ-ḥu-un, me-maḥ-ḥu-un</i>)
2 s.	<i>sarata</i>	(<i>šar-ra-at-ta</i> —KUB 14. 1. 1. 42)
	<i>tarnas</i>	(<i>tar-na-aš</i> —KBo. 4. 2. 2. 19; KUB 14. 1. 1. 62)
3 s.	<i>memesta</i>	(<i>me-mi-iš-ta, ḥal-zi-eš-še-eš-ta</i>)
	<i>tas</i>	(<i>da-a-aš, me-ma-aš, me-im-ma-aš, tar-na-aš</i>)
	<i>memest</i>	(<i>me-mi-iš-ta, tar-ni-eš-ta, ku-in-ni-eš-ta</i>)
1 pl.	<i>tales</i>	(<i>da-a-li-iš, i-ya-an-ni-eš</i>)
	<i>tarnumen</i>	(<i>tar-nu-mi-en, u-un-nu-um-me-en, u-un-nu-um-mi-in</i>)
	<i>tarnwen</i>	(<i>tar-nu-en, e-eš-šu-u-en</i>)
2 pl.	<i>tawen</i>	(<i>da-a-u-en</i> —KBo. 3. 60. 3. 12)
2 pl.	<i>tarnaten</i>	(<i>tar-na-at-tin, tar-na-at-te-en</i>)
	<i>taer</i>	(<i>da-a-ir</i>)
3 pl.	<i>memer</i>	(<i>me-mi-ir, ku-en-nir, e-eš-šir, e-eš-še-ir, e-še-ir, i-iš-še-ir</i>)

Imperative

2 s.	<i>ta</i>	(<i>da-a, tar-na, e-eš-ša</i>)
3 s.	<i>tau</i>	(<i>da-a-ú, me-ma-a-ú, tar-na-a-ú, e-eš-ša-ú</i>)
2 pl.	<i>taten</i>	(<i>da-at-tin, da-a-at-tin, da-at-te-en, tar-na-at-tin</i>)
	<i>memesten</i>	(<i>me-mi-eš-tin, me-mi-iš-tin, tar-ni-iš-tin</i>)
3 pl.	<i>tantu</i>	(<i>da-an-du, me-ma-an-du, e-eš-ša-an-du</i>)

Part.	<i>tanz</i>	(<i>da-an-za, da-a-an, tar-na-an-za</i>)
Inf.	<i>tarnumanzi</i>	(<i>tar-nu-ma-an-zi, šar-ru-ma-an-zi</i>)
	<i>tawanzi</i>	(<i>da-a-u-wa-an-zi, pi-e-ya-na-u-wa-an-zi</i>)
Supine	<i>yanevan</i>	(<i>i-ya-an-ni-wa-an</i>)
Verb. N.	<i>tarnumar</i>	(<i>tar-nu-mar, šar-ru-mar</i>)
	<i>tawar</i>	(<i>da-a-u-wa-ar</i>)

Other Heteroclitie Forms

Present		
2 s.	<i>tarnasi</i>	(<i>tar-na-ši</i>)
3 s.	<i>ari</i>	(<i>a-ar-ri, ma-al-ti</i>)
	<i>petaezi</i>	(<i>pi-da-a-iz-zi</i>)
3 pl.	<i>peniyanzi</i>	(<i>pi-en-ni-an-zi, pi-en-ni-ya-an-zi, u-un-ni-ya-an-zi</i>)
	<i>utenzi</i>	(<i>u-tin-zi, ha-at-tin-zi</i>)
Preterit		
3 s.	<i>petaet</i>	(<i>pi-da-a-it, be-da-a-it</i>)
Imperative		
2 s.	<i>memi</i>	(<i>me-mi, tar-ni, ku-en-ni, e-iš-ši</i>)
	<i>tales</i>	(<i>tal-li-i-e-eš—VBoT 24. 3. 39</i>)
3 s.	<i>saratu</i>	(<i>šar-ra-at-tu</i>)
	<i>talestu</i>	(<i>ta-a-li-eš-du—KBo. 3. 3. 2. 9</i>)
Part.	<i>peniyanz</i>	(<i>pi-en-ni-ya-an—KUB 12. 58. 4. 18</i>)

c. Class III, Diphthongal Stems

462. *tai-* 'place', *nai-* 'lead, turn, drive', *pai-* 'give', *šai-* 'bind', *zai-* 'cross, transgress'.

Present		
1 s.	<i>tehi</i>	(<i>te-iḫ-ḫi, te-ḫi, ne-iḫ-ḫi, pi-iḫ-ḫi</i>)
2 s.	<i>taiti</i>	(<i>da-it-ti, ta-it-ti, na-it-ti, pa-it-ti</i>)
3 s.	<i>tai</i>	(<i>da-a-i, na-a-i, pa-a-i, iš-ḫa-a-i</i>)
1 pl.	<i>tiyaweni</i>	(<i>ti-i-ya-u-e-ni, ti-ya-u-e-ni, pi-i-ya-u-e-ni, pi-ya-u-e-ni</i>)
2 pl.	<i>shiyateni</i>	(<i>iš-ḫi-ya-at-te-e-ni—KUB 14. 8. 2. 35</i>)
3 pl.	<i>tiyanzi</i>	(<i>ti-an-zi, ti-ya-an-zi, iš-ḫi-ya-an-zi</i>)
	<i>neyanzi</i>	(<i>ne-ya-an-zi, ne-e-ya-an-zi</i>)
Preterit		
1 s.	<i>tehun</i>	(<i>te-iḫ-ḫu-un, ne-iḫ-ḫu-un, pi-iḫ-ḫu-un</i>)
2 s.	<i>tais</i>	(<i>da-a-iš, da-iš, pa-iš</i>)
	<i>paista</i>	(<i>pa-iš-ta—KBo. 3. 4. 2. 12</i>)
3 s.	<i>tais</i>	(<i>da-a-iš, da-iš, na-a-iš, na-iš, pa-a-iš</i>)
	<i>naist</i>	(<i>na-iš-ta, na-eš-ta</i>)

1 pl.	$\begin{cases} \text{tiyawen} \\ \text{taiwen}^{124a} \end{cases}$	(<i>ti-ya-u-en, pi-ya-u-e-en</i>)
3 pl.	$\begin{cases} \text{tiyer} \\ \text{neyer} \\ \text{taer} \end{cases}$	(<i>ti-i-e-ir, ti-e-ir, pi-i-e-ir, iŝ-ŭi-i-e-ir</i>) (<i>ne-i-e-ir</i>) (<i>da-a-ir, da-a-i-e-ir, na-a-ir, na-i-ir</i>)
Imperative		
2 s.	<i>tai</i>	(<i>da-a-i, da-i, na-a-i, na-i, pa-a-i</i>)
3 s.	<i>tau</i>	(<i>da-a-ú, pa-a-ú</i>)
2 pl.	<i>taisten</i>	(<i>da-a-iŝ-tin, na-iŝ-tin, na-eŝ-tin</i>)
3 pl.	<i>tiyantu</i>	(<i>ti-an-du, pi-an-du, pi-ya-an-du, iŝ-ŭi-ya-an-du</i>)
Part.	<i>tiyanz</i>	(<i>ti-an-za, ti-ya-a-an, pi-ya-an-za</i>)
Infin.	<i>piyawanzi</i>	(<i>pi-ya-u-wa-an-zi, pi-ya-u-an-zi</i>)
Verb. N.	<i>tiyawar</i>	(<i>ti-ya-u-wa-ar, ti-ya-u-wa-aŝ</i>)

Other Heteroclitic Forms

Present		
2 s.	$\begin{cases} \text{paisti} \\ \text{zasi} \end{cases}$	(<i>pa-iŝ-ti</i> —KBo. 5. 6. 3. 13) (<i>za-a-ŝi</i> —Bo. 2773. 1.)
3 s.	<i>tiyezi</i>	(<i>ti-ya-zi, ti-iz-zi</i>)
2 pl.	<i>praisteni</i>	(<i>pa-ra-iŝ-te-ni</i> —KBo. 3. 27. 1. 26)
3 pl.	<i>huwanz</i>	(<i>hu-u-wa-an-zi, a-ra-a-an-zi</i>)
Preterit		
1 s.	$\begin{cases} \text{tenun} \\ \text{shiyannun} \end{cases}$	(<i>te-nu-un</i> —KUB 1. 16. 2. 3) (<i>iŝ-ŭi-ya-nu-un, hu-u-i-ya-nu-un</i>)
2 s.	<i>paíta</i>	(<i>pa-it-ta</i> —KUB 14. 1. 1.22)
3 s.	<i>tiyat</i>	(<i>ti-ya-at, iŝ-ŭi-ya-at</i>)
1 pl.	<i>halzewen</i>	(<i>hal-zi-ú-en</i> —KBo. 5. 3. 1. 40)
3 pl.	<i>huwer</i>	(<i>hu-u-e-ir</i> —KUB 19. 18. 1. 27)

463. *au-* 'see', *maus-* 'fall'.

Present		
1 s.	<i>uhi</i>	(<i>u-uh-ŭi</i>)
2 s.	<i>auti</i>	(<i>a-ut-ti</i>)
3 s.	<i>auszi</i>	(<i>a-uŝ-zi, ma-uŝ-zi</i>)
1 pl.	<i>aumeni</i>	(<i>a-ú-me-ni, a-ú-um-me-ni</i>)
2 pl.	$\begin{cases} \text{auteni} \\ \text{usteni} \end{cases}$	(<i>a-ut-te-ni</i> —KUB 21. 42. 1. 30) (<i>uŝ-te-ni</i> —KBo. 3. 28. 2. 9)
3 pl.	<i>uwanzi</i>	(<i>ú-wa-an-zi</i> ¹²⁵)

^{124a} Delaporte, Gramm. 75, cites "*daiwen*" without reference.¹²⁵ Friedrich, ZA NF 3. 186 fn. 1, 203.

Preterit		
1 s.	<i>uhun</i>	(<i>u-uh-hu-un</i>)
2 s.	<i>austa</i>	(<i>a-uš-ta, ma-uš-ta</i>)
3 s.	<i>aust</i>	(<i>a-uš-ta, a-ú-uš-ta</i>)
1 pl.	<i>aumen</i>	(<i>a-ú-me-en</i>)
3 pl.	<i>awer</i>	(<i>a-ú-e-ir, a-ú-ir</i>)
Imperative		
1 s.	<i>uwalu</i>	(<i>ú-wa-al-lu</i>)
2 s.	<i>au</i>	(<i>a-ú</i>)
3 s.	<i>austu</i>	(<i>a-uš-du</i>)
2 pl.	<i>austen</i> ¹²⁶	
Part.	<i>mausanz</i>	(<i>ma-uš-ša-an-za</i> —KUB 4. 1. 4. 26)
	<i>musanz</i>	(<i>mu-ša-a-an</i> —KUB 13. 2. 2. 30)
Infin.	<i>mauswanzi</i>	(<i>ma-uš-šu-u-wa-an-zi</i> —Bo. 2800. 2. 8)
	<i>aumani</i>	(Arzawan <i>a-ú-ma-ni</i> —VBoT 1. 12)

3. The Medio-Passive

a. Forms with Simple Endings

(including endings with final *t*)

464. *ya-* 'go', *es-* 'sit', *ke-* 'lie', *kes-* 'become', *ar-* 'stand', *pahs-* 'protect', *uwa(e)-* 'appear'.

Present		
2 s.	<i>pahsta</i>	(<i>pa-ah-ḥa-aš-ta</i> —KUB 1. 16. 3. 28)
3 s.	<i>esa</i>	(<i>e-ša, ki-i-ša, ki-ša</i>)
	<i>yata</i>	(<i>i-ya-at-ta, ki-it-ta, ar-ta, u-wa-it-ta</i>)
1 pl.	<i>eswasta</i>	(<i>e-šu-wa-wa-aš-ta, ar-wa-aš-ta</i>)
	<i>arwastat</i> ¹²⁷	
2 pl.	<i>yatuma</i>	(<i>i-ya-ad-du-ma, pa-ah-ḥa-aš-du-ma</i>)
3 pl.	<i>yanta</i>	(<i>i-ya-an-ta, i-ya-an-da, e-ša-an-da, e-ša-an-ta</i>)
Preterit		
1 s.	<i>yahat</i>	(<i>i-ya-ah-ḥa-at, e-eš-ḥa-at, ki-iš-ḥa-at</i>)
	<i>yahahat</i>	(<i>i-ya-ah-ḥa-ḥa-at, e-es-ḥa-ḥa-at, ki-iš-ḥa-ḥa-at</i>)

¹²⁶ Cited without reference by Forrer, ZDMG 76. 214, and Delaporte, Gramm. 77.

¹²⁷ Cited by Hrozný, Congr. 1. 156, from Bo. 3343. 13.

2 s.	$\begin{cases} kesat \\ kestat \end{cases}$	$(ki\text{-}\acute{s}a\text{-}at\text{---}KBo. 6. 3. 2. 30)$ $(ki\text{-}\acute{i}\acute{s}\text{-}ta\text{-}at, ar\text{-}ta\text{-}at)$
3 s.	$\begin{cases} esat \\ yatat \end{cases}$	$(e\text{-}\acute{s}a\text{-}at, ki\text{-}\acute{s}a\text{-}at)$ $(i\text{-}ya\text{-}at\text{-}ta\text{-}at, ki\text{-}\acute{i}t\text{-}ta\text{-}at, ar\text{-}ta\text{-}at, u\text{-}wa\text{-}\acute{i}t\text{-}ta\text{-}at)$
2 pl.	<i>kestumat</i>	$(ki\text{-}\acute{i}\acute{s}\text{-}du\text{-}ma\text{-}at\text{---}KUB 14. 16. 3. 29)$
3 pl.	<i>yantat</i>	$(i\text{-}ya\text{-}an\text{-}ta\text{-}at, e\text{-}\acute{s}a\text{-}an\text{-}da\text{-}at, e\text{-}\acute{s}a\text{-}an\text{-}ta\text{-}at)$
Imperative		
2 s.	<i>eshut</i>	$(e\text{-}e\acute{s}\text{-}\acute{h}u\text{-}ut, ar\text{-}\acute{h}u\text{-}ut, a\text{-}ar\text{-}\acute{h}u\text{-}ut)$
2 pl.	<i>yatumat</i>	$(i\text{-}ya\text{-}ad\text{-}du\text{-}ma\text{-}at, e\text{-}e\acute{s}\text{-}tum\text{-}ma\text{-}at, e\text{-}e\acute{s}\text{-}du\text{-}ma\text{-}at, ki\text{-}\acute{i}\acute{s}\text{-}du\text{-}ma\text{-}at)$
Part.	<i>kesanz</i>	$(ki\text{-}\acute{s}a\text{-}an\text{-}za, ki\text{-}\acute{s}a\text{-}an, ki\text{-}\acute{i}\text{-}\acute{s}a\text{-}an)$
Verb. N.	<i>asatar</i>	$(a\text{-}\acute{s}a\text{-}a\text{-}tar, u\text{-}wa\text{-}a\text{-}tar, u\text{-}wa\text{-}tar)$

b. Forms with Complex Endings

465. The verbs listed under a., and *zahiya*- 'fight', *neya*- 'lead, turn, drive', *karusiya*- 'be quiet', *war*- 'burn', *luk*- 'grow light', *sarkaliya*-, *hwitiya*- 'draw, lead', *su*- 'press out, fill', *priya*- 'blow', *salek*- 'lie together', *seskiya*- 'sleep'.

Present		
1 s.	$\begin{cases} yahari \\ eshahari \end{cases}$	$(i\text{-}ya\text{-}a\acute{h}\text{-}\acute{h}a\text{-}ri, za\text{-}a\acute{h}\text{-}\acute{h}i\text{-}ya\text{-}a\acute{h}\text{-}\acute{h}a\text{-}ri)$ $(e\text{-}e\acute{s}\text{-}\acute{h}a\text{-}\acute{h}a\text{-}ri, ar\text{-}\acute{h}a\text{-}\acute{h}a\text{-}ri)$
2 s.	$\begin{cases} kestat \\ estari \\ karusiyari \end{cases}$	$(ki\text{-}\acute{i}\acute{s}\text{-}ta\text{-}ti, ar\text{-}ta\text{-}ti, ne\text{-}ya\text{-}at\text{-}ta\text{-}ti)$ $(e\text{-}e\acute{s}\text{-}ta\text{-}ri, i\text{-}ya\text{-}at\text{-}ta\text{-}ri\text{---}KUB 14. 6. 8)$ $(ka\text{-}ru\text{-}u\acute{s}\text{-}\acute{s}i\text{-}ya\text{-}ri\text{---}KUB 6. 41. 3. 60)$
3 s.	$\begin{cases} yatari \\ esari \\ warani \\ lukate \end{cases}$	$(i\text{-}ya\text{-}at\text{-}ta\text{-}ri, i\text{-}ya\text{-}ta\text{-}ri, ki\text{-}\acute{i}t\text{-}ta\text{-}ri, ar\text{-}ta\text{-}ri)$ $(e\text{-}\acute{s}a\text{-}ri, ki\text{-}\acute{s}a\text{-}ri, ki\text{-}\acute{s}a\text{-}a\text{-}ri, pa\text{-}a\acute{h}\text{-}\acute{s}a\text{-}ri)$ $(wa\text{-}ra\text{-}a\text{-}ni^{128})$ $(lu\text{-}uk\text{-}kat\text{-}ti, lu\text{-}kat\text{-}ti, lu\text{-}uk\text{-}kat\text{-}te, lu\text{-}kat\text{-}te)$
1 pl.	<i>eswastati</i>	$(e\text{-}\acute{s}u\text{-}wa\text{-}a\acute{s}\text{-}ta\text{-}ti, za\text{-}a\acute{h}\text{-}\acute{h}i\text{-}ya\text{-}u\text{-}wa\text{-}a\acute{s}\text{-}ta\text{-}ti)$
2 pl.	<i>sarkaliyatumari</i>	$(\acute{s}ar\text{-}ka\text{-}li\text{-}ya\text{-}tu\text{-}ma\text{-}ri\text{---}KUB 1. 16. 2. 49)$
3 pl.	<i>yantari</i>	$(i\text{-}ya\text{-}an\text{-}ta\text{-}ri, i\text{-}ya\text{-}an\text{-}da\text{-}ri, e\text{-}\acute{s}a\text{-}an\text{-}ta\text{-}ri, a\text{-}ra\text{-}an\text{-}ta\text{-}ri, a\text{-}ra\text{-}an\text{-}da\text{-}ri)$
Preterit		
1 s.	<i>eshati</i>	$(e\text{-}e\acute{s}\text{-}\acute{h}a\text{-}ti, ar\text{-}\acute{h}a\text{-}ti)$
2 s.	<i>iyatati</i>	$(i\text{-}ya\text{-}at\text{-}ta\text{-}ti\text{---}KUB 8. 48. 1. 16, ar\text{-}ta\text{-}ti\text{---}KBo. 5. 13. 2. 8)$

¹²⁸ Sommer, KIF 1. 120-4.

3 s.	$\begin{cases} \textit{esati} \\ \textit{sutati} \end{cases}$	$(e\text{-}\acute{s}a\text{-}ti, ki\text{-}\acute{s}a\text{-}ti, \acute{h}u\text{-}it\text{-}ti\text{-}ya\text{-}at\text{-}ti)$ $(\acute{s}u\text{-}ut\text{-}ta\text{-}ti\text{---}KBo. 6. 34. 3.17, kittati^{129})$
1 pl.	<i>priyawastati</i>	$(pa\text{-}ri\text{-}ya\text{-}u\text{-}wa\text{-}\acute{a}\acute{s}\text{-}ta\text{-}ti\text{---}KUB 8. 48. 1. 1,$ $[\acute{s}a\text{-}]li\text{-}ku\text{-}wa\text{-}\acute{a}\acute{s}\text{-}ta\text{-}ti\text{---}KBo. 3. 45. 9)$
3 pl.	<i>kesantati</i>	$(ki\text{-}i\text{-}\acute{s}a\text{-}an\text{-}ta\text{-}ti, a\text{-}ra\text{-}an\text{-}ta\text{-}ti, ne\text{-}ya\text{-}an\text{-}ta\text{-}ti)$
Imperative		
1 s.	$\begin{cases} \textit{waharu} \\ \textit{arhaharu} \end{cases}$	$(u\text{-}wa\text{-}\acute{a}\acute{h}\text{-}\acute{h}a\text{-}ru\text{---}KUB 14. 14. 2.15, 30)$ $(ar\text{-}\acute{h}a\text{-}\acute{h}a\text{-}ru\text{---}KBo. 4. 14. 3. 6)$
2 s.	<i>seskiyahuti</i>	$(\acute{s}e\text{-}e\acute{s}\text{-}ki\text{-}\acute{a}\acute{h}\text{-}\acute{h}u\text{-}ti\text{---}KBo. 3. 18. 2. 13)$
3 s.	$\begin{cases} \textit{esaru} \\ \textit{yataru} \\ \textit{waranu} \end{cases}$	$(e\text{-}\acute{s}a\text{-}ru, ki\text{-}\acute{s}a\text{-}ru, pa\text{-}\acute{a}\acute{h}\text{-}\acute{s}a\text{-}ru)$ $(i\text{-}ya\text{-}ta\text{-}ru, ki\text{-}it\text{-}ta\text{-}ru, ar\text{-}ta\text{-}ru)$ $(wa\text{-}ra\text{-}a\text{-}nu\text{---}KUB 17. 12. 3. 5)$
2 pl.	<i>ketumati</i>	$(ki\text{-}id\text{-}du\text{-}ma\text{-}ti\text{---}KBo. 5. 12. 4. 7, \acute{h}arap\text{-}dumati^{130})$
3 pl.	<i>yantaru</i>	$(i\text{-}ya\text{-}an\text{-}ta\text{-}ru, a\text{-}ra\text{-}an\text{-}ta\text{-}ru, pa\text{-}\acute{a}\acute{h}\text{-}\acute{s}a\text{-}an\text{-}ta\text{-}ru)$

¹²⁹ Hrozný, Congr. 1. 158, cites this from an "unnumeriertes Fragment".

¹³⁰ Cited by Hrozný, Congr. 1. 157, from Bo. 2072. 4. 11.

ADDITIONS AND CORRECTIONS

- p. 41, l. 20 from end, before *a* insert: written
- p. 41, l. 19 from end, between final and *i* insert: written
- p. 60, ll. 8 f., dele: *pi-en-ni-iš* (Kbo. 4.2.4.28)
- p. 60, ll. 17 and 16 from end, dele: *iš-ḥar-nu-ma-iz-zi* ... 'bloody', Probably *esharnu-* and *esharnuma(e)-* are separate verbs, the latter being a denominative from **esharnumas*.
- p. 62, l. 18. In connection with the orthography *e-eš-zi* = *eszi* it should be noted that Buck, Gramm. of Osc. and Umbr. 166, interprets Osc. *ist* as perhaps indicating a long vowel.
- p. 70, l. 15 from end, after the period add: We have noticed [13, 14] that the Hittite syllabary is closely related to that of the Tell el-Amarna letters, which also display confusion between *S* and *Š*.
- p. 76, last two lines. The connection of *kwapi* with Lat. *ubi* will be discussed at length in the projected volume on syntax.
- p. 97, after l. 20, add: *supalas* (*šu-up-pa-la-aš*) 'pig sty' (?) : Gk. *īs*, Lat. *sūs* 'pig', OE *sū* 'sow'.
- p. 100, l. 15 from end. By comparing *kesa*, *kesari* with Skt. aor. subj. 3 pl. *śeṣan* I mean to suggest identity of origin for the vowel of the second syllable. I am aware of the problems raised by such a comparison, but their discussion must be postponed to another occasion.
- p. 114, l. 17, dele: *vayati*.
- p. 123, l. 13, after *ghṛṇoti* add: (known only from a grammarian's citation).
- p. 134, l. 12 from end, add: Since the etymology of *ansi* (*a-an-ši*) 'wipes' is unknown, it is idle to speculate on the source of its antevocalic *ns*.
- p. 136, l. 21, dele: Lat. ... tree. Since *mahlas* means 'branch of a grape vine' (Ebelolf, OLZ 36.5 f.), it is of course to be separated from Lat. *mālus*.
- p. 157, ll. 1 f., read: from the stem vowel of the second class of the *hi*-conjugation (acc. *u-na-at-tal-la-an* 'merchant' from *una-* 'bring' [352], etc.
- p. 157, ll. 6 f., for), or ... *an(s)-* 'see'). read: , *ū-wa-tal-lu-uš* from *uwa(e)-* 'appear, be seen' beside *au-*, *aus-* 'see'.
- p. 171, l. 12 from end, for and read ,
- p. 171, l. 11 from end, after 'terrible' add: , and *haluwa* (*ḥal-lu-wa*) from *haluwais* 'quarrel'.
- p. 173, l. 18 from end, after the parenthesis insert: and *haluwaz* (*ḥal-lu-wa-az*—KUB 21.19.3.17).
- p. 173, l. 17 from end, dele: , besides *supayaz*,
- p. 215, l. 15 from end, dele: *hashas* ... 'open' (?);
- p. 219, before the footnotes, add a paragraph: *nakiyane-* (1 s. *na-ak-ki-ya-an-ni-mi*, 2 s. *na-ak-ki-ya-an-ni-eš-ši*—KBO. 3. 17. 1. 14, 18) 'revere', from *nakiya-* with suffix *na* [353–7].
- p. 227, ll. 3 f., dele: *halu-* (*ḥal-lu-wa*, *ḥal-lu-wa-az*) or
- p. 227, l. 4, after *ḥal-lu-wa-a-in* insert: *ḥal-lu-wa*, *ḥal-lu-wa-az*,
- p. 227, l. 7 from end, add: So also *ara(e)-* (*a-ra-iz-zi*, 3 pl. *a-ra-a-an-zi*) beside *arai-* 'arise' and *uwa(e)-* 'appear' beside *au-*, *aus-* 'see'.
- p. 231, l. 15 from end, for *ya-* read: *yana-*
- p. 255, l. 12, before 'he went' insert: , *pa-it-ta* (KUB 1.16.3.10)
- p. 264, l. 6 from end, for *au-* 'see' read: *uwa(e)-* 'appear',

INDICES

References are to pages

I. HITTITE¹

-a 49, 84, 171 fn. 78, 192	<i>alwanzenas</i> 69
<i>Ahiyawa</i> 72	<i>amel, ametaz</i> 192
<i>ak-, ek-</i> 75 fn. 79, 240, 284; <i>aki, akteni</i>	<i>ampasi</i> 38
46; <i>aks</i> 230, 259; <i>akalu</i> 255; <i>ak</i> 260;	<i>ampasis</i> 66 fn. 59; <i>ampasen</i> 168 fn. 72
<i>aku, aktu</i> 261	<i>amuk</i> 83, 135, 191, 192
<i>akesketari</i> 250; <i>akeskewan</i> 114	<i>amuk-as-kan</i> 46
<i>aku-</i> , see <i>eku-</i> , <i>aku-</i>	<i>amukaya</i> 192
<i>akukalet</i> 107, 119, 121, 144, 243	<i>anaren</i> 168 fn. 72
<i>akuske-</i> 119, 237, 278 f.; <i>akuskenun</i> 218	<i>anas</i> 87, 132, 146, 178 f.; <i>ani</i> 167; <i>ana</i>
<i>akutaras</i> 156	165; <i>anaz</i> 141, 173
<i>akwakwas</i> 145	<i>anawalis</i> 58
<i>alalamas, alalimas</i> 156	<i>aneske-</i> 278 f.
<i>alapah-</i> 285	<i>aniniyami</i> 65
<i>alaresketari</i> 250	<i>anis</i> 109, 201, 209
<i>alis, alpas</i> 87, 130, 138	<i>anisan</i> 201
<i>alwanzatar</i> 69; <i>alwanzanas</i> 85	<i>aniur</i> 46, 53, 148
	<i>aniya-</i> 148, 149

¹ Verbs are entered in the stem forms and nouns in the nom. s.; but a treatment of an inflectional form is indicated by citing that form.

All words are here written according to the broad transcription employed in the text. In order to find a word known from a cuneiform text, a text in syllabic transcription, or from a broad transcription in other works (including my Hittite Glossary), one should bear in mind the following points:

- (1) Repeated vowels are not indicated (*da-a-i* = *tai*) [49-52].
- (2) Non-phonetic vowels are omitted (*ši-ip-pa-an-ti* = *spanti*) [30-4].
- (3) For etymological as well as for orthographic reasons *i* is frequently represented by *e* (*iš-ḫa-aš* = *eshas*) [40a].
- (4) Postconsonantal *u* before a vowel and intervocalic *u* are written *w* (*ku-iš* = *kwis*, *i-da-a-la-u-i* = *italawi*) [45a].
- (5) Initial *i-ya* is represented by *ya* (*i-ya-u-e-ni* = *yaweni*) [44].
- (6) Initial and medial *u-wa*, *ú-wa* and medial *ku-wa*, *ku-u-wa*, etc. are sometimes written *wa* (*kwa*) for etymological or other reasons (*ú-wa-aḫ-nu-wa-ar* = *wahnūwar*, *e-ku-wa-te-ni* = *ekwateni*); so also occasionally *we* for *ú-wi*, *kwe* for *ku-u-e*, etc. [45, 46].
- (7) The repetition of consonants is neglected (*ši-ip-pa-an-ti* = *spanti*); but when *z* is written three or four times with non-phonetic vowels I transliterate *zz* (*e-iz-za-az-zi* = *ezzi*) [69, 72].
- (8) Only voiceless stops are written; for *q* or *g* see *k*, for *d* see *t*, for *b* see *p* (*da-a-i* = *tai*) [53].

- aniyan* 148
aniyaz 149, 168, 188 f.
-anki, 104, 109
anku 104
anta 104, 212
antan 212
antuhsananz 159
antuhsas 178 f.; *antuhses* 43 fn. 22
anturiyas 56, 128, 136
anturz 96, 104, 128, 136, 141
ans 260
ansi 292
anz 65, 146, 188 f.; *an* 164; *antas* 69;
antel 175
anzais 180 f.; *anzait* 174
anzas 68, 104, 109, 134, 138, 191, 193
anzel 193
ap-, see *ep-*, *ap-*
apa 73, 75, 87, 93, 129, 206, 212 f.
apai- 213, 247
apan 206, 212
apas 76, 201, 208 f.; *apun* 93 fn. 29, 201;
apat 83, 204; *apetas* 204; *apeta* 204,
205 f.; *apetan* 206; *apetani* 83, 204;
apez, *apeza*, *apeaz*(?) 206; *apus* 53;
ape 99; *apenzan* 205; *apetas* 204
apasela 203
apatar 186; *apanas* 134
ape, *apetas* etc., see *apas*
apenesan, *apeneswanz* 161
apetanta, *apetaser* 206
apezis 126, 155
apun, *apus*, see *apas*
apuzis 155
ar-, *er-* 60, 92, 93, 107 f., 109, 133, 217,
239, 240, 283; *ert* 240; *eri* 260
ar- (midd.) 107, 133, 289 ff.; *arta* 265;
artari 262, 265; *arwasta* 265 f.; *aran-*
tari 262; *artat* 265; *artati* 263, 265;
arwastat 263 fn. 97; *arhaharu* 264;
artaru 265
ar- 'wash' 244
ara- 238, 244; *arai* 65; *ari* 287; *arumar*,
arumas 153; *arantel* 175
ara 'customary' (?) 65, 135, 167
ara 'amico' 170
ara(e)- 292; *aranzi* 288; *arae* 256; *aranz*
112
arai- 60, 217, 247; *arai* 65; *arais* 60
arawah- 241 f.
arawanes 168 fn. 72
areske- 238, 278 f.; *areskenu* 218
arha 88, 136, 142, 174, 212 f.
arhi 88, 142
arhz 88, 136, 141, 142, 174
arhzanta, *arhzenas* 88
ariya- 217; *ariya* 65
ariya 'in the forest' 170 f.
ark- 87, 116, 137; *arkwar* 53, 187
arkamas 184
arkuwa(e)-, *arkuwe*(?), *arkuwesar* 222
armah-, *armanz* 242
arnu- 106, 107, 108, 109, 133, 234, 277 f.;
arnuzi 46, 102; *arnumeni* 73, 97, 115;
arnwanzi 114, 236; *arnunun* 254 and
fn. 75; *arnut* 256 and fn. 82; *arnwer*
137; *arnutu*, *arnwantu* 96 f.; *arnwanz*
236; *arnumar* 187; *arnumas* 133, 187
arnuske- 217
arpas 93, 131, 160; *arpan* 94
arpwanz 131, 160
ars- 90, 136, 138
arsa(e)- 226, 227
arsanatalas 107, 157, 225
arsaniya- 107, 111, 137, 139, 157, 225;
arsaniyer 46
arse- 227
arsis 226
arske- 106, 117, 139, 237
arunas 65, 178 f.; *aruna* 94 f., 170
arumanzi = *aruwanzi* 60
aruwanis 180
aruwanzi 60
arwa(e)- 87, 113, 137, 226
as-, see *es-*, *as-*
-as 198 f., 206; *-at* 204; *-a* 198 and fn. 21;
-e 99, 198 and fn. 21
asanu- 236; *asanwanzi* 69
asas-, *ases-* 152, 216, 236, 239, 283; *asashi*
257; *asashe*(?) 257 and fn. 84; *asast*
259; *asasta*(?) 260; *asesantes*, *ases-*
wanzi, *aseswar* 241
asatar 150
asawar 53, 187
ases, see *asas-*, *ases-*
asesanu- 236

- asesar* 152, 186
asi 201
asiya- 56, 148, 151; *asiyanz* 158
asiyatar 56, 151
asiyavatar 151, 186
askas 178 f.; *aska* 170; *askaz* 140, 141, 173
asnu- 234; *asnulu* 255
asul, asulas 148
asus 108, 148, 168, 181 f., 226 fn. 24, 227; *asu* 54; *asawas* 57, 170; *asuwas* 58, 170; *asawi* 57, 171 f.; *asuwi* 58, 171; *asawaz* 93, 173 f.; *asuwas* 173; *asawes* 176
asuwa(e)-, 226 f.
at-, see *et-*, *at-*
ataman 134
atas 167, 178 f.; *atan* 69; *atas* 170; *ati* 167; *ata* 165; *atus* 176, 177; *atas* 177
au-, aus- 103, 110, 139, 228, 247, 250, 288 f.; *uhi* 101, 110, 247, 248, 257; *auszi* 49, 60, 248, 258; *uwanzi* 288 and fn. 125; *uhun* 110, 150, 247, 248; *aust* 60, 259; *awer* 46, 137; *uwalu* 255; *au, austu* 261; *aumani* 29, 154
auris, auriyalas 159
awan 101, 114, 212 f.
awaris 58
azke- 71, 81, 84, 127, 139, 237, 278 f.; *azkezi* 48
-e, see *-as*
ehu 100, 108, 266
ek-, see *ak-*, *ek-*
eku-, aku- 80, 91, 97, 110, 119, 156, 221, 237, 270 f.; *ekusi* 73; *ekuzi* 67, 68; *akweni* 116, 120; *ekuteni, ekwateni* 59, 60; *ekwen* 116
ekunimas, ekutaras 156
-el, -ela 203, 205
elzi 46 fn. 32
em- 213
emeya- 112, 133, 213, 216, 224, 282; *emenun(?)* 224
empawar 213
eni 109, 201; *enin* 207
ep-, ap- 52, 75, 91, 97, 110, 130, 155, 221, 270 f.; *epzi* 51 fn. 39, 62; *epun* 254 and fn. 75; *epwen* 57; *ep* 64; *epari, apatat* 250
er-, see *ar-*, *er-*
ermala(e)- 227
ermalanaz 91, 159
ermalas 46, 91, 159, 225, 227
ermaliya- 225, 227
ermas 91, 135, 137, 151, 159
ermatar 151
es-, as- 'be' 51, 52, 88, 99, 108, 220, 240, 267, 268 f.; *esmi* 139; *eszi* 46, 62, 64, 126; *asanzi* 46, 126; *esun* 136; *est* 126, 255; *esta(?)* 255; *eswen* 99, 220; *esten, eser* 99; *asalu, eslit, eslut* 255; *es* 64; *asanaz* 69, 133, 141, 158; *eswar* 57, 67
es-, as- 'set, sit' 52, 91, 110, 221 f., 234, 236, 270 f., 289 ff.; *eszi* 31, 150; *esha-hari* 264; *esa* 31, 150, 250, 251 fn. 69, 265; *esari* 31, 46, 150, 250, 251 fn. 69, 262, 265; *estari* 62, 64; *esanta, esantari* 105, 266; *eshat, eshat, eshat* 264; *esat, esati* 250, 265; *estumat* 266; *eswastati* 263; *esantat* 266; *eshut* 100; *esaru* 250, 265; *eswan* 154
esa- 85, 230, 238, 246, 286 f.
esar 72, 142 f., 185
eses- 230
eseske- 238
eshahru(?), see *eshru*
eshananz 84, 159
eshar 46 fn. 32, 51 fn. 39, 52, 62, 64, 72, 88, 106, 139, 142 f., 185; *eshani* 172; *eshant* 104, 175
esharnu- 60, 235, 292
esharnuma(e)- 60, 292
eshas 62, 88, 94, 139, 142, 178 f.; *eshe* 100, 170; *eshes* 40
eshru 143
esri 180; *esri, esre* 171
et-, at- 79, 88, 98 f., 108, 127, 220, 237, 269 f., *ezzi* 49, 84, 86, 129; *asteni* 49, 84, 129; *atanzi* 66; *ezi* 129; *eter* 99, 137; *et* 62, 64; *atanz* 158
etas 127, 200, 204, 207; *eti, etani* 127, 200, 204; *etez* 204; *eteza* 206
eza- 71, 127, 246
ezaza(?) 246 fn. 60
ha- 93, 142, 146, 213
hahimas 156
hahrske- 70, 106, 215
halentuwa 58

- halhaltumaris* 145
halipen 168 fn. 72
halis 180; *halen* 168 fn. 72; *hales* 175;
halis(?) 177 fn. 87
haliya- 160, 282; *haliyenzi* 253
haliyames 175
haliyaras or *haliyaris* 160
halkis 179 f., *halket* 108, 174; *halkius* 176
halu- 292
halukas 82; *haluki* 167
halukatalan 69
haluwa(e)- 227
haluwais 227, 292; *haluwa* 292; *halwayaz*
173; *haluwaz* 192
halzewen 57, 288
halzesa- 230, 246, 286 f.; *halzesai* 65
halzeses- 230
halziya, *halziyari*, *halziyatari* 217;
halziyawas 154
hamenk-, *hamank-* 69, 234, 273; *hamenk-*
war 53
haminai 179
hana- 152, 213, 237
hanas 87, 132, 146
hanesar 39, 43 fn. 22, 152, 186 f.; *hanes-*
nanz 174
haneske- 237
hansatar 134 fn. 101
hanta 87, 155, 172
hanta(e)- 66, 127, 132, 149, 151, 213, 282;
hantanz 158
hantais 146, 147
hantantatar 63
hantatar 150 f.
hantas 127, 132, 146, 149, 158, 213
hantaz 149
hante- 213
hantezis 87, 124, 126, 132, 142, 155, 179
f.; *hantezi* 171; *hanteziyat* 173; *han-*
teziyas 177
hanteziyas, *hanteziyan* 168
hanti 87, 95, 124, 126, 132, 142, 212
hantiya- 127
hantiyara 170
hanz 87, 124, 132, 142, 172, 189; *hanti* 63
hanzas 95
hapar, *hapara(e)-* 227
hapariya- 282
hapatis 75, 79, 88, 93, 127, 142, 146, 225
hapatiya- 225
haras 93, 132, 137, 142, 184
harharas 145 f., 179; *harharai* 170
har(k)- 216, 220, 268, 272 f.
hark- 48, 66, 91, 151, 220, 232, 236, 271 f.
harkanau 104
harkanas 166; *harkana* 151
harkanu- 236
harkes- 231
harkis 87, 95, 117, 137, 140, 142
harnaus 104, 108, 168, 181 f.; *harnau*
(acc.) 69, 135, 169; *harnain* 169;
harnawas 93, 170; *harnau* 49, 61, 172;
harnawi 171 f.
harnamar, *harnamniya-* 225
harnenk- 232, 274 and fn. 116; *harnenk-*
war 57, 67, 153
harp- 75, 91, 130, 137, 142, 213, 220
hars- 91
harsis, *harsiyalas* 159
harwasi petan 144
harzazun 164
has 168
has-, *hes-* 214, 240; *hast* 259; *hasta*(?)
260
hasa hanzas 145, 165
hasana, *hasanai* 170
hasananz 174, 186
hasas 178 f.; *haset* 174; *hasa* 95, 145, 165
hashas- 214; *hasaswar* 53
haske- 134 f.
hastai 93, 124, 139, 142, 180 f.; *hastet* 51
hastwer 93, 127, 139, 142, 154
hasuwanin 164
hasuwet 62
hat- 269; *haszi* 129; *hast* 49, 129
hatalus 181
hatenzi 258, 287
Hati 28
Hatili 28, 160
hatk- 117, 213, 236, 239
hatkanu- 236
hatra(e)- 152, 282; *hatrami* 112; *hatrasi*
218; *hatraezi* 61, 112; *hatraweni* 59,
60, 112; *hatranun* 112; *hatraes* 112,
140; *hatraet*, *hatrawen*, *hatrai*, *hatrantu*
112

- hatresar, hatriya-, hatriyasar* 152
hatukes- 231
hatukis 181; *hatuka* 171; *hatukayaz* 173;
hatukaes 175
hatulani 101
hatules- 232
Hatusas 27
Hatusilis 70
henk- 69, 116, 132, 142, 148, 234, 273
 and fn. 114; *henkzi* 47; *henkt, henkta*
 (?) 255; *henkata* 250
henkan 132, 142, 148, 183; *henkanaz* 174
hes-, see *has-*, *hes-*
heyus 53, 55, 111
hilamar 72
huha hanes 145, 165
huhartis 146
huhas 94, 101, 140, 142; *huha* 145, 165
huhupal 146
huk-, see *hwek-*, *huk-*
hukmais 147, 180 f.
hukmatalas 147
hula- 214, 219, 238; *hules* 231
hulali 63, 225
hulaliya- 225
hule- 218 f.; *hulazi* 218 and fn. 14
huleske- 238
hulhuliya- 214
huliya- 281 f.
humanz 53, 71, 168, 188 f.; *human* 69,
 85, 125; *humanas* 69, 163; *humantaz*
 69; *humantes* 43 fn. 22, 163, 175, 176;
humantus 163, 176, 177; *humanta* 98,
 178; *humanas* 177
hunenk- 233 and fn. 35
hunu-(?) 59, 60
hup- 222
hupar 183
huprushin 164
hupwai 180 f.
hurn-, *hurnais* 147
hurta-, *hurtais*, see *hurta-*, *hurtais*
huske- 54, 109, 237
huwai- 56, 94, 213, 214, 223, 234, 237,
 247; *huwai* 58, 65; *huwanzi* 112, 288;
huwer 288
huwarta- see *hurta-*
huwarzike, see *hurzke-*
huwenu- 59, 60, 234, 237; *huwenut* 60
huweske- 237
huwiya- 56, 223
hwantes 97
hwasi 179 f.
hwek-, *huk-* 80, 88, 96, 109, 113, 121, 142,
 147, 220, 221, 233, 270
hwes- 54, 89, 109, 113, 139, 142, 220, 221
 fn. 18a, 235, 237; *hwesawas, hwesawes*
 153, 169
hwesnu- 235
hwesnuske- 236
hwesus 89, 113, 142, 181, 227
hweswa(e)-, hweswe- 227 f.
hwezt 129
hwitar 150, 186; *hwitnas* 134, 150
hwitiya- 75 fn. 79, 129, 290 f.; *hwitiyawar*
 154
hwitiyaneske- 279; *hwitiyaneskewani*
 218
hwirta- 59, 60, 105 f., 113, 128, 142, 147,
 237; *hwirtas* 70
hwirtais 60, 106, 128, 142, 147, 180 f.
hurzke- 106, 128, 237
i- 150; *ii* 46, 64, 95, 108, 128; *iten* 95,
 108
ilaliya-, ilatar, ilesar 215
inan 183
irhas 227
irha(e)- 227, 282
isalis 159
isas 159; *isiya* 171
ishai-, see *shai-*
isham-, for words beginning thus see
sham-
ishasarwatar 151
ishimant, see *shimant*
ishiul, see *shiul*
ishiya-, see *shiya-*
ishiyal, see *shiyal*
ishuzis, see *shuzis*
isiyak- 73
iskala-, iskaleske-, see *skala-, skaleske-*
iskaruh 188; *iskaruhet* 46 f.
iske- 224
iskisa 170
iskiia- 224
ispai-, see *spai-*

- ispant-*, for words beginning thus see *spani-*
ispar-, *ispariya-*, see *spar-*, *spariya-*
ispart-(?) 246, see *spart-*
isparza-, see *sparza-*
ispalar, see *spalar*
ispiya-, see *spiya-*
istamanas-, *istamar*, see *stamanas*,
stamar
istamas-, see *stamas-*
istanta(e)-, *istap-*, see *stanta(e)-*, *stap-*
istark-, see *stark-*
istarna, see *starna*
istarnenk-, see *starnenk-*
italamus = *italawus* 60
italawah- 58, 72 fn. 72, 242, 285; *itala-*
wahun 60; *italawahanz* 158
italawatar 151; *italawani* 63, 151
italawes- 231, 274 f.; *italawesteni* 63;
italaweser 43 fn. 22
italus 151, 181 f.; *italu* 164 f.; *italawi* 63,
114; *italaz* 174; *italawes* 93; *italawus*
60; *italawa* 93, 177
itar 150
iwaru, *iwarwa(e)-* 227
iya-(?) 55
-ka 82
kainas 66
kakapas 146
kalar 162, 164 f., 183; *kalaran* 162
kalaresh- 231
kalkalturi 146
kaluten 168 fn. 72
kalutas 170
kanes- 66, 116, 132, 139, 229; *kaneswar* 53
kaniniyawar 53
kank- 93, 116, 132, 239, 244; *kankwar* 239
kanka- 116, 235, 244
kanut, see *kenu*
kapuwa(e)- 219, 228; *kapuwaetu* 112
kapuwe- 219, 228, 279 f.
kari, *kariya-* 118, 137
karmalasai 65
karp- 48, 75, 91, 120, 220, 271 f.; *karpanzi*
47, 69; *karpwar* 57
karpis 118
karpuya- 75, 281 f.
kars- 48, 120, 137, 139, 149, 228, 229, 274
f.; *kars* 256
karsaz 149
karse- 229
karsi, *karsis*, *karsikarsiyaz* 145
kartimes- 232
kartimiya- 149, 160
kartimiyawanz 160
kartimiyaz 71, 141, 149, 160, 188 f.
kartis 106, 116, 127, 181; *kartiyas* 166;
karta 171
karu 159
karusiya- 235, 282, 290 f.; *karusiyari*
265; *karusiyanz* 160
karusiyantili 160
karusyanu- 235
karuwilis 59, 159, 181, 225
karuwiliya- 225
kankanu- 235, 244
kankati, *kankata(e)-* 227
kas 66, 116, 201, 207 f.; *kun* 93 fn. 29,
201; *ki* 64, 201; *kel* 201; *keti* 204;
ketani 201, 204; *kez*, *keza* 206; *kus* 53
65 fn. 57, 201; *ke* 64, 99, 201, 206;
kenzan 205; *ketas* 204
kasz 118, 149, 160, 188 f.
kata 73, 77, 116, 124, 160, 172, 206, 212 f.
Katahas 72
katan 105, 116, 124, 206, 212 f.
kate- 100, 105, 124, 172, 190 and fn. 2
katerah- 242
kateras 137, 160
kateraz 141
kalkatenu- 214
ke, *kel*, etc., see *kas*
ke- 66, 100, 116, 221, 228, 229, 289 ff.;
ketumati 266
kelamus, *kelawus* 60
keltiya- 38
kemanz 66, 73, 100, 118, 124, 132, 135,
140, 141
kenu 62, 64, 66, 89, 96, 109, 117, 132, 181;
kenu (dat.) 172; *kanut* 102, 109, 141,
175; *kenuwa*, *kenuwas* 177; *kenus*
163
kenzu 159, 227
kenzuwa(e)- 227

- kenzuwalas* 159
kes- 100, 116, 139, 228, 229; *kesa* 250;
kesari 250, 251; *kesat* 250, 265; *kesati*
250; *kestati* 263; *kestumat*, *kesantat*,
kesantiati 266; *kesaru* 250; *kesanz* 158
kesa- 229
kesar 36, 38, 41, 89, 118, 144, 167, 168,
183; *kesri* 40; *kesari* 47, 126, 141, 175
kesras 167
kesris 168, 180; *kesrin* 164; *kesres* 168
kesta- 122, 124, 139
kestanu- 122, 124
kestanz 159, 225; *kestantet* 126
kestanziya- 126, 225
kestwanz 160, 188 f.; *kestwanta* 172
ki, see *kas*
-ki 82
kiki- or *kike-* 80, 95, 215
kikis- or *kikes-* 80, 95, 215, 229; *kikistari*
62
kilamni 72
kimanz(?) 100, see *kemanz*
kimra 170
kinun-a-wa 50
kisan 95, 116, 161
kiswan 161
kitpantalaz 69
krap-, *krep-* 76, 91, 93, 109, 118, 131, 239,
240, 283; *krephi* 257; *kreps* 230, 231,
240; *krepa(?)* 231; *kreper* 62, 64;
krepuanzi 241; *krepuan* 154, 241
-ku 120
kukureske- 237 fn. 46
kukurs- 80, 216; *kukursanz* 67, 119
kukurske- 119, 216, 237
kun, *kus*, see *kas*
kun-, see *kwen-*
kunk- 234
kunkunuzis 146, 155
kup- 150, 220
kupiyatis 180; *kupiyaten* 168 fn. 72
kuptar 150
kur-, see *kwer-*
kuras 59
kuresar 152
kursas 119
kurtas 119, 157; *kurtan* 67
kurur 32, 97, 119, 137, 148, 151, 162, 183,
225; *kururi* 63, 165, 178
kururatar 151
kururiya- 225
kururiyah- 73, 285
kusan 149, 157, 184, 225; *kusani* 63
kusane 168 fn. 72, 180
kusani, *kusaniya-* 225
kusata 149, 157
kuskus- 102, 123, 146, 159, 229
kuskusuli 146, 159
kustwantawar 122
kutanali 159
kutar 67, 77, 106, 122, 124, 159, 185
kutrus 106, 120, 124, 137, 181, 227;
kutruwes 176
kutruwa(e)- 120, 227
kwapi 76, 120, 203
kwask- 104, 109, 123, 134, 237, 245
kwaskwas- 214 f.
kwat 57, 93, 203
kwata 'quot' 77
kwata 'whither', see *kwis*
kwatan, see *kwis*
kwe, *kwel*, etc., see *kwis*
kwen-, *kun-* 66, 89, 109, 123, 132, 155,
215, 220, 235, 237, 270; *kweni* 134;
kwenzi 121; *kunanzi* 67; *kwenun* 254
and fn. 75; *kwewen* 46, 57, 134, 220;
kunanz 84, 158
kwen- 85, 225, 230, 238, 245, 286 f.
kwenes- 230
kweneske- 238
kweniya- 225
kwenun- 235; *kwenunun* 254 and fn. 75
kwenzumnas 161
kwer-, *kur-* 109, 119, 137, 140, 148, 152,
157, 220, 228, 237, 270; *kwerzi* 91;
kuranzi 67; *kwert* 91; *kuranz* 158
kweras 59
kwis 57, 95, 120, 202 f., 209 f.; *kwin* 136;
kwit 62, 83, 95, 204; *kwel* 203; *kwetani*
83, 166 f., 204; *kwata* 204, 205 f.;
kwatan 83, 203, 205, 206; *kwez* 206;
kwes 43 fn. 22, 62, 64, 112, 175, 176;
kwe 99, 206; *kwetas* 204
kwisa 49, 74, 202, 211; *kweza* 206

- kwiski* 32, 67, 120, 202, 210; *kwiska*,
kwisku 120; *kwelka* 66, 120; *kwetaniki*,
kwetanika 82; *kwezka* 66; *kweka*,
kweki 82, 99
kwis kwis 145, 202
kwit-at 46
la- 138, 248 and fn. 65; *lai* 65, 248;
lawun 248
laha 170, 225
lahilaheskinu- 215
lahiya- 215, 225, 245
lahiyaneske- 245
lahlahimas 156
lahlahinu- 215
lahlahiya- 156, 215
lahu- 59, 60, 138, 142, 239, 244, 284;
lahuhi 68, 257
lahuran 164
lahurnuzi, *lahurnuzis* 155
lahwa- 59, 138, 142, 244; *lahwai* 65
lak- 82, 93 f., 109, 118, 138; *lakari*,
laku 250
laknu- 99, 109, 234
lalus, *lalas*, *lalet* 175
lamamet 65, 134
laman 62, 85, 94, 104, 135, 184, 225;
lamnas 133; *lamni* 63; *lamnet* 175
lamniya- 132, 225
laparnas 179; *laparnai* 170
lazais 147, 225
lazis 225
laziya- 147, 225
laziya- 242
le 64
lelaneyanz 145 and fn. 8
lelas, *leliwanz* 145
lenk- 69, 89, 108, 118, 132, 138, 147,
230, 234, 273 and fn. 114; *lenkt* 48;
lenk 256
lenkais 89 fn. 14, 103, 118, 132, 138,
147, 149, 180 f., 226; *lenkayas* 93, 113,
170; *lenkiyas* 166, 170; *lenkai* 103;
lenkaus 113
lenkan 149; *lenkant* 175
lenkanas 149
lenkanu- 235
lenkanuske- 236
lenke- 235
lenkes- 230
lenkiya- 225 f.
liliwah- 216
lip- 75, 130, 138, 222
lulimes 168 fn. 72
lulu 63, 146, 227
luluwa(e)- 227
luk- 80, 102, 116, 138, 157, 220, 222, 290
f.; *lukata* 263 f.; *lukate* 51, 99 f., 263 f.
luke- 116, 222 and fn. 21
lukes- 232
lutas 84, 126, 157, 178 f.; *lutai* 103, 170;
lutiya 171; *lutanz* 173
luzi 138, 155
-ma 85, 87, 135, 141
mahan-ma 49
mahlan 136, 292
mai- 135, 158, 224, 247; *mai* 65, 102; *ma*
64
makes- 98, 109, 231
maklanz 83, 97 f., 116, 135
mala- 135, 138, 145, 243 f.; *malai* 102;
malanzi 69, 73
malitus 98
malt- 244; *malti* 287
malta- 244
man 88, 132, 135
-man, see *-mes*
man-at 50
maninkwanz 160 fn. 53; *maninkwan* 69
maninkwantahi 69
maninkwes- 232
maniyah- 149, 157, 285
maniyahatalas 73, 157
maniyaheske-, *maniyahiyaz* 149
mariyeta 62
mark- 48, 91, 117, 135, 137, 220; *marka-*
tari 250
marnuwantet 175
marsa 135
marsah- 242
marses- 231
-mas, see *-mes*
mase 168 fn. 72
masi 180
masiyanki, *masiyanz*, *maswanz* 161

- mmas-* 215
mat- 221, 269; *mazi* 129; *mazzi* 49, 84, 86, 129; *mazi* 49, 84, 129
maus-, *mus-* 103 f., 108, 229, 246 fn. 63; *mausanz* 229 fn. 27
-me 29, 101, 135, 194, 196
mehur 110, 185
mekis 83, 89, 98, 104, 109, 135, 179 f., 180 f.; *meki* 165; *mekes* 112, 175, 176; *mekeas* 61, 66, 93, 112 f., 175, 176; *mekus* 176; *mekaus* 112 f., 177; *mekaya* 93, 98, 113, 165, 177
mekit 77, 89, 98, 124, 135, 138
melites- 77, 231
melitus 77, 98
mema- 51, 85, 88, 89, 133, 135, 215, 224, 230, 235, 238, 243, 286 f.; *memahi* 257; *memai* 60, 102; *memahun* 44 fn. 24; *memas* 230, 231; *memer* 243; *memalu* 255; *memi* 260; *memau* 261
memanu- 235
memal 145, 182 f.; *memalet* 175
memes- 230; *memesten* 261
memeske- 237, 238
memiya- 224
memiyas 168 f., 184; *memiyan*, *memiya-* 168 f.
meni 180
menahanta 69
mene 168 fn. 72
mer- 135, 137, 221 and fn. 18a; *mert*, *mertu*, *meranta* 91
-mes 101, 135, 190, 194, 197; *-man* 194; *-met* 85; *-mas* 194
meta(e)- 77, 226
meya- 111, 135, 224, 235, 247; *meyanz* 158, 159, 189; *meyanta* 172
meyantilis 159
meyanu- 235
meyas 158
meyes- 231 f.
meyus 111
mima- 95, 133, 214, 216, 244
misriwanz 160 fn. 53
Mitanamuwas 47
miya-(?) 224; see *meya-*
miyahuntēs- 232
miyahwanz 160 fn. 53
miyali 160
mīa-(?) 243 f.; see *mala-*
-mu 194, 196
mumeya- 216
muris, *muriyalis* 159
Mursilis 70 f.
-mus, see *-mes*
musnen 168 fn. 72
-mu-za 125
nah- 149, 221; *nahwas* 153
nahan 149
nahsaraz 149, 161
nahsareske- 149; *nahsareskewan* 153
nahsariya- 149, 161, 282; *nahsariyanzi* 56
nahsariyawanz 160 f.
nahsarnu- 149
nai- 60 f., 108, 132, 214, 224, 229, 237, 244, 247, 287 f.; *nehi* 100, 110, 247, 248; *nai* 62, 65, 102, 248, 249; *nehun* 110, 247; *nais* 103, 125, 230, 231; *naist* 259; *naest* 259 fn. 87; *naisten* (pret.?), *naer* 260; *nai*, *naisten* 261; *naesten* 261 fn. 92; see also *neya-*
nais- 229
nakes- 232
nakis 179 f.; *naki* 63; *nakes* 175, 176; *nakies(?)*, *nakus* 176
nakiyah- 242
nakiyanesi 73
nanah- 215
nanai- 215, 247
naneya- 215
-nas 74, 132, 138, 194, 195, 197
nas 109, 199, 206
nata 39, 78, 99, 132
nawi 46 fn. 30, 57
ne 64, 99
nehi, *nehun*, see *nai-*
neku- 82, 122 f.
nekumanz 67, 68, 82, 123, 132, 136, 160
nekuz 31, 67, 82, 123, 132, 140, 141, 149, 189
nenenk- 69, 117, 132, 233, 234, 274 and fn. 116

- nenk-* 69, 117, 132, 220, 233, 234, 273
 and fn. 114; *nenk* 256
nepes 77, 89, 131, 132, 139, 187 f.; *nepesas*
 94, 139; *nepiyas* 170; *nepesi* 95, 172;
nepesz 174
Nesumnili 28 fn. 6
newas 89, 113, 132, 178 f., 241; *newet*
 62, 64, 174 fn. 82
newah- 89, 113, 132, 241, 285
neya- 89, 108, 111, 224, 290 f.; *neyanzi*
 51 fn. 39; *net* 112; *neyer* 260; *neyanz*
 69, 145, 158; *neya*, *neyari* 250, *neyatati*
 263
nu 64, 96, 132, 199
nu-mu-kan 49, 196
nu-nas 50, 197
nuntarnu- 235, 277 f.
nu-san 74
nu-se, *nu-smas-at* 50, 197
nu-ta, *nu-ta-kan* 50, 196
nu-tu-za 50, 197
nu-wa 49
nu-wa-nas 74
nu-za 125
pahs- 85, 284, 289 ff.; *pahsta* 259; *pahsi*
 260; *pahsari* 250; *pahsta* 265; *pahs-*
tuma, *pahstumat*, *pahsantaru* 266
pahsnu- 277 f.
pahunali 160
pahur 130 and fn. 93, 142, 160, 185 f.;
 see *pahwar*
pahural 182 f.
pahwar 130, 138, 142, 186; *pahune* 160;
pahweni 109, 160, 172; *pahunaz* 96,
 109
pahwenali 160
pai- 'go' 146 fn. 11, 213, 221, 276 f.;
paisi 140; *paizi* 73, 103, 126; *paiweni*
 115; *panzi* 112; *paun* 254 and fn. 75;
paita 255; *pa* 64; *panz* 158; *pawar*
 53; *pawanzi* 115, 154
pai- 'give' 213, 223, 229, 247, 287 f.;
pehi 247, 248; *pai* 65, 103, 248; *peyanzi*
 55, *pehun* 247; *paita* 255; *pais* 258;
 see also *pes-* and *peya-*
pais- 229
paiskawan 154
palhan 106 f.
palhas 151
palha 135
palhasti 126, 155 f.
palhastis 155
palhatar 151
palhesar 152
palhis 106 f., 130, 142, 151, 152; *palhes*
 175
palwa(e)-, *palwatalas* 157
pankaret 118, 226
pankariya- 226
pankur 185
pankus 96, 104, 118, 131, 140, 181;
pankun 136; *pankus* 169; *pankawi* 46
 fn. 30, 108; *pankawe* 172
papars- 75, 91, 130, 137, 139, 215
paparske- 106, 215
papratar 186; *paprani* 172; *paprananz*
 174
papratar-as 46
papreta 255
paprs- 229; *paprszi* 70, 71
para, see *pra*
parh- 48, 72, 90, 130, 229, 242, 245 and
 fn. 58; *parhzi* 143
parha-, *parhana-* 245 and fn. 58
parihas 66 fn. 59
parkamus = *parkawus* 60
parkan 122, 148 f.
parkanu- 122
parkasti 156
parkiyanu- 56 f.; *parkiyanwanzi* 122
parkunu- 122, 235, 277 f.; *parkunumi* 73
parkus 'clean' 122, 227; *parkuwa* (neut.
 pl.) 98
parkus 'high' 106, 118, 131, 181 f.;
parkawus 60
parkus-(?) 59, 60
parkwa(e)- 122, 152, 227
parkwes- 58, 59, 60, 122, 152, 232, 274 f.
parkwesar 152
parkwis 56, 107, 121, 122, 131, 137, 149,
 180 f.; *parkwayaz* 173; *parkwes* 176
parkwiya- 227
parkwiatar 56, 227
parna 159, 177, 178 f.; *parni*, *parna*,
parnas 177
parnalis 159

- parनावaiske-, parनावeske-* 58
pars- 72, 90, 148, 229, 243; *parsi, par-*
sanzi 258
parsiya- 131, 282; *parsiyezi, parsiya,*
parsiyetari, parsiyetaru 258
parsiyana- 225, 245
parsiyaniya- 225
parsur 148, 183
partawar 187
partiparleske- 215
pas- 94, 130, 139, 229; *paszi* 62
pasilas 131; *pasilan* 164; *pasilus, pasilas*
164 fn. 62
paskawar 53
-pe 77, 131
pe- 55, 131, 213
pe-har(k)- 90, 118, 131, 137, 213
pehute- 80, 213, 222, 275 f.
pen- 60
pena- 60, 213, 237, 244; *penai* 73 f.;
penes 259 and fn. 87a; *pener* 47;
penumanzi, penwanzi 115
penes- 229; *penest* 259
peneske- 237
peniya-, peniyanzi, peniyanz 287
per 174; *perz* 47, 140, 174
peran 69, 85, 212 f.
perunanz 159
pes- 229; *pesta, pest* 259; *pesten* (pret. ?)
260
peske- 108, 278 f.; *peskemi* 218; *peskelu*
255; *peskewan* 153, 154
peta- 44 fn. 26, 66, 213, 243; *petai* 65
peta(e)- 'bring' 44 fn. 26; *petaezi* 287;
petanzi 69; *petast* 287
peta(e)- 'fly' 77, 89, 124, 130
petan 62, 64, 66, 79, 89, 93 fn. 29, 94,
127, 130, 136, 178 f.; *pete* 100, 170
petana- 245; *petanewan* 154, 245 f.
petar 77, 89, 124, 130
petarpalhis 145
petiya- 77
peya- 223
peyana- 286 f.
pipa- 216
pipit 29, 119 fn. 73
pnu- 229, 274 f.
pnu skewar 154
pra 62, 93, 130, 137, 212 f., 213 f.
prai- 213 f., 247
praisleni 288
prases- 214
prastus 127, 139
priya- 290 f.; *priyawastati* 266
punus-(?) 229
pupuli 146
purut 188 f.
purpuras 146; *purpurus* 47
sa- 105, 146, 214
sahamet 134
sahan 149, 155, 183; *sahana* 177 f.
sai- 246; *sai* (imper.) 65
sak-, sek- 81, 92, 93, 108, 120, 139, 147,
239, 240, 283; *sakhi* 62, 257; *sakti* 127;
sekweni 120; *sakta* 127, 259; *saks* 230;
sakes (?) 231; *sekt* 240; *sekwen* 120;
sak, saki 260; *saktu* 261; *sekanz* 241
sakais 103, 120, 147
sakiya- 120, 152
sakiyah- 120
sakiyasar 152
saklais 87, 117, 139, 159
sakuneske- 82, 105, 123, 146, 214, 229
sakuni- 82, 123, 146
sakwa 62, 81, 93, 120, 139, 141, 165 f.,
179; *sakwaz, sakwet* 164
sakwa(e)- 141
sakwasar 162
sakwasaran 162, 183
sakwis 82, 105, 121, 123, 146
sala- 214
salanu- 277 f.
salek- 89, 99, 105, 109, 118, 138, 214, 234,
290 f., *salekzi* 89 fn. 13; *saleka* 94, 250;
salekwastati 266
sales- 232
salhiyanten 168 fn. 72
salis 138, 139, 179 f., 180 f.; *salas* 170;
salai 103; *salayaz* 93; 173; *sales* 175;
salayas 113
sakiya- 214
samanus 163
samen- 214
-san 69, 74, 85, 134, 214
-san 'his', see *-ses*
sana- 230; *sanast* 231

- sanēs*- 230
sanezis 155
saneziyah- 242
sanh- 'peto' 48, 69, 108, 133, 139, 149, 243; *sanhi* 143; *sanhun* 84
sanh- 'cleanse' 243
sanhu- 278; *sanhwanz*, *sanhunzi*, *sanhwanz* 59; *sanhunz* 59, 158
sankunis 38, 226; *sankunes* 40
sankuniya- 226
sara 69, 212 f.
sara- 155, 219, 286 f.; *sarata* 255; *saratu* 261
sarama 85, 134
sarazis 126, 155
saraziyah- 73, 242
sare- 219
sarkaliya- 290 f.; *sarkaliyatumari* 266
sarkantes 175, 176
sarkus 233
sarla(e)- 149, 157
*sarlata*s 157, 161
*sarlata*s 161
sarlaz 149
sarnenk- 69, 156, 233, 274 and fn. 116; *sarnenkanz* 158; *sarnenkwar* 187; *sarnenkwas* 153; *sarnenkwes* 153, 169
sarnenkzel 69, 126, 156, 182 f.
sartiya 170
saru, *sarwa(e)*-, *sarwe*- 227, 228
sas 29, 200, 207; *setani* 204; *se* 64, 99
sas-, see *ses*-, *sas*-
sastas 157, 179
sawetes 59, 60, 78, 90, 105, 114, 125, 141, 146, 149, 164
se, *setani*, see *sas*
-se 101, 139, 190, 194, 197
sehur 174, 185 f.; *sehunz* 174
sek-, see *sak*-, *sek*-
seknus 181; *seknus* (pl.) 176
septamas 89, 98, 124, 130, 136, 139, 156; *septamiya* 171
ser 212 f.
ser-ma-san 50
ses-, *sas*- 89, 108, 139, 152, 157, 220, 225, 268 f.; *seszi* 126; *sesanzi* 220; *seswas* 153
-ses 101, 139, 190, 194, 197 f.; *-san* 69, 85, 194; *-sen* 69; *-set* 69, 85; *-sus* 194; *-se* 177 fn. 88
sesa- 246
sesar 152
sesareske- 146, 148
sesarul 146, 148, 182 f.
sesha- 215, 247
seske- 225
seskiya- 225, 290 f.; *seskiyahut*, *seskiya-huti* 266
shai- 139, 142, 155, 223, 246 f., 248, 287 f.; *shai* 102; *shehun* 247
shamais, *shamatalas*, *shamis*, *shamiya*- 147, 225
shimant 175, 184
shiul 148
shiya- 148, 223, 281 f.
shiyal 148, 182 f.
shuzis 155
sipant-, see *spant*
sipanzake-, see *spanzke-sitar*, see *star*
siya- 246
skala- 117, 238 and fn. 49
skaleske- 238 and fn. 49
-smas 190, 193, 194 f., 197
-smes 190, 194 f., 198
spai- 130, 139, 223, 247
spant- 47, 76, 93 fn. 29, 94, 107, 127, 130, 133, 139, 155, 239, 284; *spanthi* 257; *spanthe*(?) 257 and fn. 84; *spantenzi* 258; *spantanz* 158; *spant-wanzi* 154
spantuzelas 69
spantuzesar 152 fn. 28
spantuzi 47, 69, 130, 155, 159
spantuzis 155
spantuziyalas 159
spantuziyasar 152 fn. 28
spantaz 69
spanske 71, 107, 127; *spanzkezi* 48
spar- 130, 225, 239
spariya- 99, 111, 130, 137, 139, 224 f.
sparya-(?) 99
spart- 220, 246, 269; *sparzzi* 49, 129, *sparzi* 49, 84, 129
sparza- 129 fn. 92, 246
spatar 186

- spiya*- 130, 223, 247
sra(?) 212 f.
stamanas 93; *stamanan* 69, 85; *stamanus* 136
stamar 93 and fn. 29, 124, 133, 136, 140, 185, 229; *stamant* 104, 175
stamas- 133, 229, 274 f.; *stamaszi* 252
stanta(e)- 124, 140, 141, 227, 235;
stantaet 69
stantanu- 235
stap- 76, 88, 98, 124, 130; *stapt* 259;
stapta(?) 260
star 77, 124, 183; *starz* 174
stark- 91, 220, 233 and fn. 37; *starkt* 255
starkiyet 255
starna 90
starne- 90, 190
starnenk- 233 and fn. 37, 274 and fn. 116
su- 96, 245, 290 f.
suha- 140, 142, 244
suhas 140, 142; *suha* 170
sula(e)- 151, 227, 228
sulatar 151, 186
sule- 228
sules- 232
sulis, *suliya*- 226, 227
sumanzan 97, 111, 135, 136, 140, 148
sumas 193
sumasela 203
sumel, *sumenzan* 193
sumes 190, 193, 196
*sun*a- 96, 108, 133, 140, 225, 230, 238, 245; *sunanzi* 69
sunes- 230
suneske- 238
suniya- 225; *suniyet* 62
supalas 76, 292
Supilulyumas 70 f.
supis 95, 108, 168, 179 f., 180 f., 226;
supayas, *supas* 170; *supai* 49, 103, 171; *supaya* 113, 171; *supiyaz* 173;
supayaz 113; *supaz* 173; *supaes* 112 f., 175; *supayas* 93, 113, 177
supiya- 226
supiyah- 73, 242, 285
suple 170
-sus, see *-ses*
suwa(e)- 94, 96, 108, 133, 140, 226, 228, 282; *suwaezi* 58, 112; 198 fn. 18;
suwanz 164; *suwatari*, *suwaru* 250
suwe- 228
suwel 97, 111, 148
ta 29, 64, 124, 199
-ta 78, 124, 194, 196
ta- 66, 79, 110, 113 and fn. 65, 127, 243, 286 f.; *tahi* 257; *tahe*(?) 257 and fn. 84;
tai 94, 98, 126 f., 248; *tai* 65, 103, 248, 249; *tumeni* 73, 98, 115, 116; *tateni* 73, 98; *tahun* 136; *tata* 62, 94, 98, 127, 255; *tas* 62, 230, 258, 259; *tawen* 116;
taer 243; *ta* 64, 260; *tau* 53, 61; *tawanzi* 154; *tawar* 115
tai- 128, 223, 237, 247, 249, 268, 287 f.;
tehi 110, 247, 257; *taiti* 248; *teti*(?) 263 and fn. 98; *tai* 49, 65, 102, 248, 249; *tehun* 247; *tais* 103, 254, 258, 259;
taer 65, 153 fn. 31, 260; *tai*, *tau* 261;
see also *tiya*-
taistai 65
takaliyanz 189; *takaliyanta* 172
takan 118
takanzipas 83, 118
taks- 81, 148
taksul 148, 162, 182 f., 227; *taksulas* (pl.) 177
taksula(e)- 227; *taksulaes* 254
tala- 215, 225, 230, 286 f.; *tales* 231, 259
tales- 230; *talestu* 261
taleske- 278 f., 279
taliya- 225, 281 f.; *taliyat* 255
talukaes 82, 107, 118, 127
talukasti 82, 118, 126, 155
talukes- 82, 118
tamais 65, 202, 209; *tamain* 65; *tamel* 166; *tametas* 204; *tameta* 204, 205 f.;
tamelani 45 fn. 29, 204; *tameli* 205;
tametaz 46, 204, 206; *tamaus* 63;
tametas 204
tamas-, *tames*- 107, 127, 136, 160, 228, 229; *tamasti* 126, 252, 275; *tamast* 231
tamenk- 234
tamesha(e)-, *tameshanu*- 235
tameshas 160
tampupen 168 fn. 72
tan 128, 144, 202

- tanaranz* 157
tanatah 242
tanatas 157, 178 f.; *tanates* 176; *tanatas* 177
tankunu-, *tankuneske-* 123 f.
tankwes- 232
tankweske- 123 f.
tankwis 56, 121, 123 f., 128, 133, 179, 180 f.; *tankwayaz* 173; *tankwes* 176
tan petas, *tan petasah-* 144, 242
tapar-, *tapariyalas*, *tapariyas*, *taparnas* 66, 159
tapis 180; *tapez* 173
taptapas 146
tapus 187 f.
tapusa, *tapusz*, *tapwas* 169, 174
tara-, *taranut* 255
tarh- 84 f., 91, 220, 243; *tarhzi* 143; *tarh-wan* 154
tariya- 225
tariyanu- 217
tarkuma(e)- 38, 227, 282, *tarkumae* 256
tarkumiya- 38, 226, 227
tarma(e)- 90, 124, 133, 137, 226, 282
tarna- 106, 124, 230, 238, 245, 286 f.; *tarnati* 98; *tarnai*, *tarnumeni* 245; *tarnas* 254, 258; *tarnumen* 98, 245; *tarnwen* 115, 120, 245; *tarnaten* 98, 245, 261; *tarner* 245; *tarna* 260; *tarnanz* 158; *tarnumanzi* 115, 154; *tarnumar* 115; *tarnumas* 115, 153
tarnes- 230; *tarnesten* 261
tarneske- 238
tarnus 181
tarsanzipe 69
tarske- 'declare' 278 f.; *tarskewen* 218
tarske- 'pierce' 245
taru 128, 137
tarup-, *tarupa(e)-*, *tarupesar* 83 f., 152
tas 'et is' 199, 206; *tan* 199
ta-se 199
tasiyatar 56
taske- 110, 278 f.; *taskemi* 218; *taskes* 254; *taskenun* 136; *taskun* 93 fn. 29
tastasiya- 215
tasus 181 f., *tasawi* 114; *tasaus* 176
taswah- 105, 285
taswanz 105, 125, 134, 140
tataluske-, *tatar-*, *tatrah-* 215
tawal 159, 182 f.
tawalalas 159
taya- 62, 88, 111, 125, 141, 156
tayazel 126, 156, 182 f.
tayukas 111, 144
-te 29, 101, 124, 194, 197
te- 80, 100, 108, 128, 160, 220 f., 222, 275 and fn. 118; *temi* 62, 64; *tezi*, *tet* 51 and fn. 39
tehi, *tehun*, *teti*, see *tai*
tekan 83, 108, 118, 128, 136, 184; *taknas* 118, 136; *takna* 172
takusanu- 217, 235, 236
tekuse- 81, 100, 120 f., 128, 229, 230, 235, 279 f.; *tekuset* 255
tekuses- 230
tekusnu- 120 f.
tepawes- 232; *tepawesanz* 158
tepmu- 128, 131, 235
tepus 96, 128, 131; *tepu* 62, 64
-tes 101, 124, 190, 194, 197
teshas 160, 178 f.; *teshet* 51, 141, 174
tetanas 145, 292
tetases- 215, 230
tetha-, *tethimas* 156
tita- 216
titanu- 78, 95, 98, 124, 141, 216
tititan 146
titiya- 216
tiya- 'come' 54 f., 96, 224; *tiyenzi* 218, 253
tiya- 'set' 95 f., 223, 287 f.; *tiyanzi* 69; *tiyat* 153 and fn. 31; *tiyer* 260; *tiyawar* 187
trep- 76, 89, 125, 130
trepis 76
triyala 48
-tu 78, 96, 124, 194, 197
-tu-za 125
tuhs- 45 fn. 28, 85; *tuhsa*, *tuhsari* 250 f.
tuhwesar 186
tuk 40, 83, 96, 124, 191, 193
tuka-, *tukes-* 230
tuliya 170
tunakesar 186 f.; *tunakesna* 172
tupez 173, 180
turamet 134

- turan* 85
turiyawar, turiyawas 153
tuskara- 149
tuskaraz 149, 161, 188 f.
tuskarawanta 161
tutumeli 146
tutumes- 146, 232
tutumiyah- 242
tutumiyanz 146, 242
tutuske- 216
tuwa, tuwalas 159
tuwan(?) 212 f.
tuziman 134
tuzis 155, 179 f., 226; *tuzin* 95; *tuziyas* 170; *tuziya* 171; *tuziyaz* 173; *tuzius* 177
tuziya- 226
tuwan(?) 212 f.
twarna- 219, 245
twarne- 128 f., 219; *twarnazi, twarnatu* 219 fn. 16
twekas 57
twel, twelaz 193
u- 54, 101, 110, 113 f., 214
uhzi, see *weh-*, *wah-*
uk 64, 83, 190, 191, 192, 195
ukel, ukela 203 and fn. 36
uktures- 232
ulkesarah-(?) 59, 144 fn. 3
una- 54, 101, 214, 244, 286 f., 292; *unai* 46; *uni* 260
unatalas 157, 292
unes- 229
uni 'is' 93 fn. 29, 201, 207
uni 'bring', see *una-*
unwa(e)- 160; *unwanzi* 46
unwashas 160
up- 102, 130, 220
upa- 214, 230, 237, 238; *upahi* 46
upes- 230, 237; *upest* 152
upesar 152, 162, 186 f., 237
upesaran 162
upeske- 238
ur-(?) 59, 60, see *war-*
uriwaran, see *wariwaran*
urkis, urkiya- 226
usaiha 265 fn. 101
usiya- 225
uske- 96, 110, 117, 237, 278 f.
uskeskatalas 151, 157
uskeskatalatar 151
uskeske- 157
usneske- 113
usniya- 109, 113, 140
uta- 54, 101, 214, 238, 243; *utenzi* 258, 287
utaniya- 226
utar 84, 113, 126, 128, 150, 164 f., 185, 226; *utanas* 150; *utani* 63
uteske- 238
utne 40, 97, 129, 134, 166, 182; *utneyas* 40
utneyanz 159
uwa(e)- 157, 289, 292; *uwanzi*, see *au-*, *aus-*; *uwalu*, see *au-*, *aus-*; *uwahat* 150; *uwaharu* 264
uwatalas 157
uwatar 150, 151
wa-, we- 53, 121 fn. 79, 122, 219, 225, 253, 279 f.; *wami* 73; *wezi, wazi* 58; *wanzi* 90, 253; *wenzi* 90, 218, 253; *wanun* 254 and fn. 75; *watu* 218
wa- 110, 113 f., 214
-wa, -war 121
wah-, see *weh-*, *wah-*
wahnu- 234, 277 f.; *wahnuteni* 73; *wahnwanz* 158; *wahnumanzi* 58, 115, 154; *wahnumar* 115; *wahnunar* 57, 58, 116; *wahnur(?)* 116
wahnumanz = wahnwanz 60
wai 65
wak- 81, 117, 214, 239, 284; *waki* 62
wakar- 81, 117, 137, 214, 239; *wakars* 230; *wakares(?)* 231
wakariya- 81, 117, 214
wake- 109, 217, 223
walh- 48, 85, 107, 108, 121, 243, 245; *walhzi* 143
walhana- 225, 238
walhaniya- 225, 245
walhaneske- 238, 245
walhi 159, 179 f.
walkiyalas 159
walkesarah- 59, 144 fn. 3
walkesaras 144
wantai- 156
wantemas, wantewantemas 146, 156
wantes- 146, 232

- wapus* 181
war- 121 fn. 79, 123, 145, 290 f.; *warer* 59, 60; *warani* 264; *waranu* 58, 264
wara(e)- 227, 246
waresa- 230, 246; *waresanz* 158
wareses- 230
waris 227
wariwaran 58 f., 145
warnu- 106, 123, 234; *warnumas* 115
warp- 91, 113, 131, 137, 155, 220, 271 f.
warpuzi 155
wars- 91, 148, 217
warse- 217
warsiya- 149, 217
warsiyaz 149
warsul 148
was- 'buy' 109, 113, 140
was- 'clothe', see *wes-*, *was-*
wase- 217, 223, 240, 279 f.; *wasasi* 218
wasiya- 217, 225
waskwes 163
wasta- 147, 148, 235
wastais 147
wastanu- 235
wastul 145, 182 f.; *wastulas* 166
wata- 66, 113 and fn. 65
watar 52, 53, 57, 62, 79, 94, 113, 128, 138, 169, 184 f.; *wetar* 52, 165, 169; *wetenas* 57, 140; *wetnas* 109, 134; *weteni* 95, 109, 172; *wetenaz* 57; *wetenet* 51; *wetant* 175
watar(?) 'review', see *uwatar*
watku-, *watkunnu-* 235 and fn. 42
watarnah- 79, 84, 113, 128, 285
wate- 214, 275 f.
we- 'hither' 110, 113 f., 214
we- 'come', see *wa-*, *we-*
weh-, *wah-* 59, 220, 221, 268 f., *uhzi(?)* 269; *wehata*, *wehatari*, *wehatat*, *wehataru* 251
wek- 81, 89, 108, 109, 114, 117, 217, 220, 223, 271 f.; *wekzi* 62, 64
wekeske- 81
welku 181
wemiya- 90, 121 fn. 79, 122, 136, 218, 225, 281 f.; *wemiyezi* 62; *wemiyez* 46
wen- 123
weritemas, *weritenu-*, *weriteske-* 156
weriya- 122
wes 57, 62, 64, 114, 190, 191, 193, 196
wes-, *was-* 90, 99, 109, 114, 140, 217, 223, 225, 268 f.; *wasanzi* 73; *wasanz* 158; *waswan* 154
wesis 92, 114, 180, 226; *wesen* 168 fn. 72
wesiya- 92, 114, 156, 217, 225, 226
weske- 237; *weskewan* 154
westaras 62, 64, 92, 114, 125, 140, 156
weta- 66, 113 and fn. 65, 214, 222, 238, 246
wetar, see *watar*
wetasas 78, 161
wete- 80, 92, 129, 214, 222, 263 fn. 98, 275 f.; *wetumen*, *wetaten* 98
wetenas, etc., see *watar*
weteske- 238
weti 78, 90, 114, 125, 126, 146, 149, 161
wetin 164, 169 fn. 75, 180
wetnas, see *watar*
weya- 53, 56, 112, 114, 224; *weyanun* 56
wewak- 215, 217, 223; *wewaki* 59
wewakezi(?) 59, 60, 81, 223
weza- 71, 246
Wilusa 59 fn. 52
wiya-, *wiwai* 216
wlkesarah-(?) 59
ya- 'make' 110, 111, 219, 280 f.; *yesei* 219 fn. 17; *yasi* 140; *yezi* 55, 253; *yaweni* 114; *yenzi* 90, 218, 253; *yanzi(?)* 253; *yalu* 255; *yentu* 218
ya- 'go' 55, 88, 111, 289 ff.; *yahari* 264; *yatari* 62, 265; *yatat*, *yatati* 265; *yatuma* 93 fn. 29
-ya 171 fn. 78
yana- 55 fn. 44, 225, 245, 286 f.; *yanes* 55 fn. 44, 65 fn. 57, 231, 292; *yanewan* 154, 245 f.
yaniya- 225
yukan 54, 55, 82, 96, 111, 117, 178 f.
yukas 55, 144, 161
yukakas 161
-z 125
-za 84, 125, 194
zah- 147
zahais 103, 147, 168, 180 f.; *zahait* 174
zahis 147
zahiya- 235, 281 f., 290 f.; *zahi yawastati* 263

zahiyanu- 235
zai- 214, 234, 287 f.; *zai* 65
zainu- 234 fn. 40
-zan 134
zankilatar 69, 186; *zankilatari* 178
ze- 214
zek 83, 92, 126, 190, 191, 193, 195 f.
zek-an 46, 50
zekela 203
zena- 214
zenu- 234
zeriyali 160
zeyanz 158, 188 f.; *zeyantaz* 69; *zeyantet*
 51, 141, 175
zke- 71, 81, 128, 140, 237, 278 f.; *zkezi*
 48; *zkes* 254
zuparu, *zupari*, *zuparet* 175

II. SANSKRIT

akāṇiṣam 116, 132, 139, 229
agāt 122
agām 90, 219, 253
agneṣ 173, 174
agnau 103, 169, 171
ajati 75 fn. 79
atti 127
adikṣat 100, 121, 128, 229
adīdet 128
adugdha 265
aduha 263, 265
aduhāt 263
adbhutas 96
adhara 137
adhāyi, *adhītam*, *adhīmahi* 96, 103, 223,
 247
anayoṣ 199 fn. 23
anaiṣīt 103
apa 87
abhi 76, 131, 201, 213
abhitas 131, 141
ayoṣ 199 fn. 23
araṇas 88
arjunas 87, 117, 137, 142
arpayati 75, 130, 137, 142, 213
arṣati 90, 136, 138
ava 101, 212
avākṣam 231
avyas 170

aś- 81
aśnāti 62
aśnoti 117
aśru 143
asāt 247
asurāya 171
asṛk 88, 106, 139, 142
asthi 93, 124, 139, 142
asmat 193
asmi 139
asya 199, 200
ā-dā- 79
āddhvam 266
āp- 75
āpnoti 62, 91, 130
āra 92, 239
ārāt 88, 136, 142
ārīha, *ārur* 92
āre 88, 136, 142
āśa 62, 117, 239
āsate 105
āsura 99
āste 31, 91, 239
īta 95
īnoti 234, 236
īyanti- 161 fn. 54
īyaya 248
īyāya 94, 247, 248
irasati 107, 111, 137, 139, 225
īhi 95, 128, 256
īpsati 91
īṣyā 107
īṣe 265
uktas 121, 142
ucchati 96, 117, 237, 247
uta 125, 194 fn. 8
ud- 125
uditas 113
uṣamāṇas, *uṣāṇas* 99
upa 102, 130, 141
upari 141
ubhau 131
uṣās 139, 247
uṣitas 54
ūdhar 97, 129
ṛktas 174
ṛcchati 106, 117, 139, 237
ṛnumas 97

rṇoti 102, 114, 133, 234
rṇotu 97
rṇvanti 114
rṇvantu 97
eti 103, 126
aiṣa, aiṣṭa 265
kalakalam 146 fn. 9a
kutas, kutra, kuha, kū 120
kṛpāṇas 119
ke 99, 206
kraviṣ 119
krūras 32, 97, 119, 137, 148
kṣami 118, 136
kṣās 118
gacchati 237
galagalāyati (Pālī) 146 fn. 9a
galati 107, 121, 144, 243
galitas 107
gālayati 107, 121, 144
gūrtas, grṇāti 122
gopālas 76
grabh- 76, 118, 131
grah- 118
gharmas 123, 156
ghṛṇoti 106, 123, 292
ghnanti 67, 123
catvāras 124
canas 116
cākana 116, 229
cid 204
jagrābha 62, 91, 93, 231, 239
jajñau 249
jalām 107, 121
jahāti 118
jānu 96, 117, 132
jigāti 122
juhōti 123
tad 204
tadā 204, 205
tam 124
tamas, tamisrā 105, 125, 140
tamras 105
tasmīn 200
tasmai 195
tasya, tasyās 200
tāyus 62, 88, 111, 125, 140
tāvanti- 161 fn. 54
tāsām 205

tiṣṭhati 216
tiṣṭhāmi 98, 124
te 'tibi, te' 78, 101, 124
te 'ea' 99, 206
teṣām 205
trapate 89
dadātha 62, 94, 127
dadāmi 113 fn. 65, 127
dadima 115
dade 257
dadau 103, 113 fn. 65, 115, 243, 249
dadmas 243
dadhāti 80, 128
dadhau 102, 110, 248, 249
dan 98 f.
dabhnōti 128, 131
dabhṛas 62, 96, 128, 131
damayati 127
damitvā 229
dānāt 141
dāru 128, 137
dāvane 115, 116, 153
dive 172
diśati 120 f., 128
dīdeti 100
dīdyati 128
dīryati 96
dīrghas 107, 118, 127
duhe 265
ḍṛśiṣ 147
devāt 173
dyavi 172
dru- 128
dvāras 136
dhanuṣ, dhanva 157
dhayati 236
dhāyate 247
dhāyi 96, 103, 247
dhinōti 236
dhīmahi 96, 103, 247
dhīmahe 103, 247
dheyam 96, 103, 223
dheyur 96, 103
dhaithe 247
na 132
namśas 117
nak, naktam 123
nagnas 82

- nabhas* 131, 132, 139
nabhasas 139
nayati 89, 111, 247
nayanti 224
navas 113
naṣati 117, 132, 233
nas 68, 104, 132, 138, 194
nāma 104
ninaya 100, 110, 248
nināya 62, 102, 132, 247, 248, 249 and fn. 67
nī- 229
nu 96, 132
naī 103
naīṣ 103, 125, 231
patram 77, 89, 124, 130
paprā, *paprau* 249
parvan 153
paśyati, *paspaśe* 140
pā- 'drink' 130
pāt 141
pāti 94
pādam 105
pāsta 62, 94, 139, 229
pitaram 105
pitari, *pitre* 172
pitvas 170
piparti 130, 243
puratas, *puras* 141
pr̥thuṣ 107, 130, 142
pr̥ṣat 75, 106, 130, 137, 139
pr̥ṣatam 106, 130
pra 93, 130
phalāphala (Pālī) 146 fn. 9a
babhasti 131
bañhiṣṭhas 118
bahīṣ 141
bahuṣ 96, 104, 118, 131
bubudhe 257
br̥hant- 83 fn. 81, 106, 118, 131
bharati 131
bhasma 130
bhr̥jate 107, 122, 131
mat 204 fn. 41
madhoṣ 102
mayate 112, 133
mayas 102, 135, 224, 247
marut 141
mah- 83 fn. 81
mātram 110
mītrā 165
mīmāya, *mimau* 248
mīyedhas 135
mukhataṣ 173
mṛṇāti 102
me 101, 135
medhas 135
mlāki 102, 244
mlāyati 244
yadā 204
yāti 55, 88, 111
yānas 88
yugam 96, 111, 117
yuṣmat 193
rīyate 247
rocate 102, 116
līmpati 130, 138
vakti 88, 96, 121, 142
vac- 80, 233
vad- 79, 84
vadati 113, 128
vayati 292
vayam 114
vaś- 81
vaṣṭi 62, 89, 114, 117
vasati 54, 89, 113, 139, 142
vasate 73
vaste 90, 114, 140
vasto 172
vasnas 113, 140
vāti 97, 150
vivakti 96
veti 114
śaṅkate 244
śatroṣ 169
śatrau 172
śīrṣatas, *śīrṣnas* 174
śṛṇāti 117, 239
śete 100, 116, 221, 228
śeṣan 100, 116, 139, 228
sa 199
sakṛt 119
sakhā, *sakhāyam* 103, 168
saṁgirati 122
sanīṭ- 133
sanoti 133, 139, 243

sant- 133
santi 126
saptamas 89, 98, 124, 130, 136, 139
samitiš 126
sarvas 138, 139
savas 94, 226
sasau 248
sasti 89, 139
sišāya 102, 139, 142, 223, 247, 248
sīvyati 111
sunoti 96, 140, 245
susrāva 248, 249 and fn. 67
sūtram 97, 111
stāyus 88, 111, 140
stut 149
stṛṇāti, stṛṇīmas 245
stṛbhiš 124
stihagati 117
sthāpayati 76, 88, 124, 130
sthitas 98
sphāyati 130, 139, 247
sphītas 247
-sma 141
syati 142
syūtas 97, 111
syūman 97, 111, 136, 140
svar 148
hanti 89, 123, 132
hanmi 134
haras 118, 123
haryati, haryate 118
himas 100
hṛṇāte 118
hṛttas 174
hemantas 73, 100, 118, 124, 132, 135

III. IRANIAN

[Words not labeled are Avestan.]

ava (Av., OP) 101, 201
arəšyanti 107
asru- 143
ahe 199
ahurāi 171
ərənaoiti 106, 234, 236
ugra-bāzāuš 168
uta 125
kū 120
kūrd (Kurdish) 119

gātava 171
xšmat, xšmākəm 194
xrūra 97, 119, 148
xvəng 148
čaθruš 106, 120
čanah-, činah-, činman 116
jamaiti 90
dahāuš (OP) 168
Nabukudračara 72
pərəθuš 107
bā 131
bərəzant-, bəzah- 118
frā 93, 130
maθišta- 83
mana 205
nayeiti 89
masah- 116
masišta- 83
myazda- 135
raoδažšva 171
vayeiti 112, 114, 224
vāstar- 62, 92, 114, 125, 140
vāstra- 92, 114
staman- 93, 124
staomaine 115, 153
stārəm 124
zar-, zazūiti 118
-šaiy (OP), *-še* 101, 139
žnu- 117, 132
-he, -hōi 101, 139
haētō 172
haurvatās 141
hunaiti, hunaoiti 245
hišāyā 247
hvənmahi 120, 245

IV. ARMENIAN

argel 87, 116
ari 247
barjr 106, 118, 131
get 62
metr 89
mnam 244

V. GREEK

ἀγαγεῖν 216
ἄγω 75 fn. 79
ἀδελεφός 105, 146

ἄημι 150
 ἄησι 97
 ἄθροδος 105
 Ἀΐαντε 165
 αἶνω 97
 ἀκερσεκόμης 120, 137, 139
 ἄλοχος 105, 146
 ἀλφός, ἀλωφούς 87, 130
 ἀμεύσασθαι 104
 ἄμμι 193
 ἀμφί 131, 213
 ἀμφίς 131, 141
 ἄμφο 131
 ἀνάγκη 116, 132, 142, 234
 ἀναμαι 133
 ἀννίς 87, 132
 ἀντα 87, 124, 132, 142, 172
 ἀντί 87, 95, 124, 132, 142, 212
 ἀνύω 133
 ἀνώ 87
 ἀπερώω 90
 ἀπό 73, 75, 87, 93, 129, 212
 ἄρ 121
 ἀρά, ἀράομαι 87, 137, 226
 ἀργής 117
 ἀργικέραυνος 87, 95
 ἀργός 87, 117, 137, 142
 ἀργυρος 117
 ἄρθρον 150
 ἀρκέω 87, 116
 ἄρτυμαι 234
 ἀρόω 88
 ἀστήρ 77, 124
 ἀτέμβω 128
 αὐδή 79, 128
 Ἀχαιοί 72
 ἄως 110, 228
 βάθρον 150
 βαίνω 90, 122
 βάλλω 107, 121, 243
 βάσκε 237
 βλάξ, βληχρός 102
 γα, γάρ, γε 121
 γόνυ 96, 117
 γυμνός 67, 82, 123, 136
 δαμάζω 127, 229
 δάμναμεν 245
 δάμνημι 127, 136, 229

δέ 121
 δέεται 62, 100, 128, 160
 δέδωκα 113 fn. 65, 243
 δείκνυμι 121, 128, 160
 δῆρις 147
 δίδωμι 94, 103, 113 fn. 65, 127
 Δίφει- 172
 δῖνος 96
 δνόφος 124, 128, 133
 δοφέναι 115, 153
 δολιχός 82, 107, 118, 127
 δόμεν 153
 δόμεναι 115, 153
 δόρυ 128, 137
 δύσχιμος 100
 εαρ 62, 88, 106, 142
 εβαν 122, 253
 εβην 219
 ἐδάμασσα 229
 ἐδάμασσα 107
 εδειξα 121, 128, 229
 εδειξε 100
 εδομαι 99, 127
 εἶδαρ 153
 εἶμα 114
 εἶμι 88
 εἶπε 233
 εἶσι 103
 ἐκτός 141, 173
 ἐκών 89, 117
 ἔλεγχος 118, 132, 138, 234
 ἐλέγχω 89, 118, 132, 138
 ἔλεξα 89
 ἐμέ 135, 191
 ἐέμμα 114
 ἐμνησα 231
 ἐνδον 153
 ἐνεγκεῖν 117, 132, 233, 234
 ἐντι 126
 ἐνς, ἐντός 141
 ἐξ 141
 ἐξεράω 136
 ἐπεσον 89
 ἔπος 88, 121
 ἐρχομαι 92
 ἔσβην 122
 ἐσπάρην, ἐσπαρκα 130
 ἔσσαι, ἔσται 90

- ἐστὶ 62, 88
 ἔτος 78, 90, 114, 125, 146
 ἐτύχῃσα 230
 ἔχευα 229
 ἕως 103, 139
 ζυγόν 96, 111, 117
 ἦ αταί 105
 ἦ ἑλιος 148
 ῥῆμα 114
 ῥρέμα 91, 135, 137
 ῥσταί 31, 62, 91, 239
 ῥχῶ 103, 168
 ῥῶς 228, 247
 θείνω 89, 123
 θέναρ 157
 θερμός 123
 θραύω 129, 245
 θρύπτω 129
 θύρα 104, 128, 136
 θύραζε 96, 104
 ἱγατῆραν 105
 ἱημι 55, 90, 111, 219
 ἱθι 95, 128, 256
 ἱππῷ 170
 ἱστημι 88, 98, 124
 ἱτε 95
 καί 206
 καλλιθριξ, κάλλιστος, κάλλος 232
 καρδία 106, 116, 127
 καρπός 119, 120
 κατά 73, 77, 105, 116, 124, 172, 190 fn. 2, 212
 καταί 100, 105, 124, 172
 κάταρφος 87, 113, 226
 κείνος 116, 201, 202
 κείρω 119, 140
 κείται 80, 100, 116, 221
 κεραίζω 117
 κίοναν 105
 κίς 32
 κότερος 120
 κραδίη 106
 κρέας 119
 κυδιάνειρα, κύδιστος, κύδος 232
 κώρυκος 119
 κως 120
 λέλουμαι 239
 λελοχύια 94
 λευκός 102, 116
 λέχεται 89, 118
 λέχος 82, 89, 118, 138
 λιπαρός 130
 λίπος 75, 130, 138
 λούω 138
 λώω 138, 142, 239
 λῦμα, λῦμαρ 153
 λυμνός 123
 λύσις 155
 λύω 138, 248
 μά 87, 135
 μακεδνός 98
 μακρός 98, 116, 135
 μάν 88, 132
 μέγας 83, 89, 98, 135
 μειλίχιος 102, 135
 μέλισσα, μέλιττα 89
 μεμένηκα 133, 244
 μέμνημαι 102, 133
 μέμνημαι 85, 88, 89, 135, 243
 μήκος 83, 98, 116
 μηλίχιος 102
 μήν 88, 132
 μιγνυμι 112, 133
 μίμαρκυς 117
 μιμνήσκω 237
 μίμνω 133, 216
 μίμνων 133
 μνήσαι 88
 μοί 101, 135, 194
 μόνιμος 133
 μύλη 102
 νεᾶν 89, 132, 241
 νέος 62, 89, 132, 241
 νέφος 77, 89, 131
 νυ 96
 νύξ 123 fn. 84
 ὀ 199
 ὀδοὺς 99
 ὄζος 93, 127, 139, 142, 146, 154
 οἱ 'ei, sibi' 101
 οἶκω 141
 ὅκως 120
 ὅλος 138
 ὀλότης 141
 ὄμμα 93, 120, 141
 ὄνομα 104
 ὄνυματος 154

ὀπάων 146 fn. 11
 ὀπή 166
 ὀπηδός 75, 79, 88, 93, 127, 142, 146
 ὀπυι 120
 ὀρίνω 247
 ὄρνις 93, 132, 142
 ὄρνυμι 234, 236
 ὄρφανός 93, 131
 ὄρωρα 92, 239
 ὄσσε 93, 120, 141
 ὄστέον 93, 124, 139, 142
 οὔθαρ 97, 129
 οὐ τοι 78
 οὔτω, οὕτως 141
 ὀφείλω, ὀφλεῖσσι 114, 214
 ὀψ 121
 ὀψομαι 93, 120, 141
 πάρος 141
 πατέρα 105
 πάχος 118
 παχύς 96, 104, 118, 131
 πέδον 62, 79, 89, 94, 127, 130, 136
 πείραρ 153
 πείρω, περάω 90, 130, 243
 πεπνύμενος 229
 πέρνημι 245 fn. 58
 πέτομαι 89, 124, 130
 πηδάω 146 fn. 11
 πίνω 130
 πλατύς 107, 130, 142
 πνέω 229
 πόδα 105
 πόληι, πόλι 171
 πόλιος 170
 πολλάκι 82, 120
 πρό 62, 93, 130, 137
 πταρμός 156
 πύρ 96, 130, 138, 142
 πῶμα 94
 ῥά 121
 σβέννυμι 122, 124
 σβέσαι 122
 σκάλλω 117
 σπένδει 133, 139
 σπένδω 76, 127, 130
 σπείρει 139
 σπείρω 99, 111, 130, 137, 225, 239
 στατός 98

στέγος 140
 στέγω 117
 στέρνον 90
 στόμα 93, 124, 133, 136, 140, 229
 σφέ 139
 ταπεινός 131 fn. 95
 τέγος 140
 τείρω 215, 245
 τετραίνω 106, 124, 245
 τητάω 88, 125
 τίδημι 80, 102, 128
 τίδησι 92, 129
 τοί 78, 101, 124
 τόν 124
 τρέπω 76, 89, 125, 130
 τρυφάλεια 106, 120
 τύ 96
 τυγχάνω 230
 τύρβη 83 f.
 ὕδωρ 62, 79, 94, 128, 138, 169
 ὕει 140, 142, 244
 ὕμι 193
 ὑπό 102, 130
 ὕς 292
 φάρσαι, φάρσος 131
 φέρει 131
 φή 77, 131
 φλογμός 156
 φόνος 123
 χαίρω 118, 137
 χαμαί 118, 136
 χαρά 118
 χάρις 118, 137
 χείμα 100, 118, 135
 χείρ 89, 118
 χέω 82, 102, 123
 χήρα, χήτει 118
 χθονός 136
 χθών 83, 118, 128, 136
 ψάμμος, ψήφος 131
 ὠλεσα 229
 ὦπα 166

VI. LATIN

ago 75 fn. 79
 albus 87, 130, 138
 alicubi 67, 120
 amantur, amatur 262

ambi- 213
ambo 131
ante 87, 95
anus 132
apiscor 97, 221
aqua 67, 80, 97, 119, 144, 221
arceo 87, 116, 137
area 88
armo 226
aro 88
au- 101, 114
aufero 114, 214
aufugio 114
aurora 101, 103, 110, 139, 228, 247
avus 94, 101, 142
caries 81, 117, 137
caro 119
carpo 75, 119, 120
-ce 116, 201
cedo 116, 201
cis 95, 201
citer 95
citra 95, 116
coepti 91, 97, 130, 221
cognomen, cognomentum 154
cor 106, 116, 127
corium 119
cornus 102
cribrum 150
crudus, cruor, culter 119
cunctor 244
curtus 67, 80, 119
danunt 245
dens 98 f.
dico 81, 100, 121, 128
dis-, dixi 128
do 127
domitus 229
domo 127
donum 94
donod 141, 173
ecce 127
edere 99
edo 62, 79, 88, 99, 127
edunt 99
ego 83
endo 104, 212
equo 170

erus 62, 88, 94, 139, 142
esca 114
ex 141
facilumed 173, 174
fecer 257
fero 131, 137
fluctuo 226
fluctus 169
fores 128, 136
frango 232
fructus 176
frustum 129, 245
funditus 173
fundo 123
galea 121 fn. 81
genu 62, 89, 96, 117, 132
grates, gratus 122
guttur 67, 77, 106, 122, 124
haec 99
hiems 118, 135
hisce 201
horior, hortor 118
humus 136
i 100
iacio 55, 90, 111, 219
id 204
idem 83
iii 247
illustro 226
inferus 137, 160
invenio 90, 136
Jove 172
istud 204
it 103
iugum 54, 55, 82, 96, 111, 117
iungo 234
lavo 138, 142
lectus 118, 138
ligare 89 fn. 14
lippus 130
luceo 80, 116, 138
maceo 116
macer 83, 98, 116, 135
magis 98
magnus 98, 135
mel 89, 124, 135, 138
memini 89, 102, 133, 135, 257
meta 226

metor 77, 226
mi 135
misceo 112, 133
mitis 102, 135, 224, 247
mola 102
molo 73, 135, 138, 244
morior 135, 137
mortuus 221 fn. 18a
moveo 104
munificus, munus 232
nactus 117
nanciscor 117, 132
nebula 89
neque 132
nodus 127, 132, 146
nomen 62, 94, 104, 135
nos 68
nostri 193
novare 113, 241
novit 249
novus 113, 241
nox 67, 123, 132
nudus 123, 132
ob 201
obinunt 245
oculus 62, 81, 93, 120, 141, 166
opilio 76
orbis 93, 94, 131
orior 247
oritur, oriuntur 262
os 93, 139, 142
penna 89
peto 77, 89, 124, 130
porto, posca 130
potor, potus 94
pro 62, 93, 130, 137
prodinunt 245
quadrupes, quadruplus 106
quae 99, 206
quattuor 124, 137
ques 62
quid 62, 95
quis 67, 95
quisquis 145
quod 93
quot 77
redinunt 245
regor 265

sacer 87, 117, 139, 159
sacerdos 141
salus 149
sam 200
sancio 87, 117
se 139, 193
septimus 89, 98, 124, 130, 136, 139
sisto 216
sol 148
sollus 138
solutio 155
solvo 138
sos 200
spondeo 127, 130
spopondi 94, 239
stare 88, 124
stella 124
sto 140
sub, subtus 141
subula 97
sui 193
sum 'him' 200
suo 'sew' 111, 156
super 141
superus 160
sus 292
sus- 141
sutela 126, 156
sutor 97
te 126
tego 117, 213, 239
tendo 145
tenebrae 105, 125
tenuis 145
termino 90, 124, 133, 137, 226
terminus 226
tero 215
testis 106
texo 81
torris 147
tu 78, 124
tueor 156
turba 83 f.
tutela 126, 156
uber 97
ubi 76
valeo 144 fn. 3
vecors, vegrandis 114

venimus 240 fn. 51
venio 90, 122, 136
ventus 97
venum 113
verbum 106, 113, 128, 142, 237
vescor 114, 214
vesper 114
vestis 90, 114
vestri 193
vetus, vetustus 90, 114, 125, 149
vexi 231
vidi 257
vivus 221 fn. 18a
vox 80, 121

VII. OSCAN and UMBRIAN

[Words not labeled are Oscan.]

brateis 122
ekum 127
etek, erse (Umbr.) 83, 127
esidum 199, 200
herest 118
idik 83
peřum, persom-e (Umbr.) 89, 127, 130, 136
petiopert 119
petora 124
pir (Umbr.) 130
porsi (Umbr.) 83
pufe (Umbr.), *puf* 120 and fn. 78
prusikurent (Umbr.) 92
sakrafir 262, 265
sent 126
tiú, tiium 92, 126, 191
touto 155

VIII. CELTIC

[Words not labeled are Irish.]

ainmne 133
amynedd (Welsh) 133
angen (Welsh), *anken* (Bret., Corn.) 116
canar 262, 265
chwerfu (Welsh) 131
dofeotar 92
dor (Welsh, Bret., Corn.) 128
ecen 116

gwynt (Welsh) 97
tuath 155

IX. GOTHIC

afswairban 91, 113, 131
aha 97, 119
anstai 171
arbaiþs 93, 131
arbi 131
arjan 88
armōstai 91, 135
arpi 93
asts 93, 127, 139, 142, 146, 154
-ba, bai 131
bairan, bairgahei 131
bairgan 90, 118
bairhts 107, 122, 131, 137
bi 131, 213
biswairban 113
brikan 232
dōms 156
driusan 129
faran 130, 229
fidwōr 124
fōn 96, 130, 142
frawisan 92
giutan 123
hāhaida 244
hāhan 93, 116, 239, 244
haihāh 239
hairto 116
hātrus 119
handus 105, 172, 190 fn. 2
himma 95, 201
ik 83, 192 fn. 4
iup 102
juk, kniu 117
ligan 89, 118, 138
malan 135
meins 205
mik 192 fn. 4
mikils 89, 135
miliþ 77, 89, 124, 135, 138
nahts 123
naqaþs 123, 132
nati 127, 146
ni 132
nimada, nimaza 251

niujis 89
qēmum 240 fn. 51
qīman 90
qistjan 122, 124, 139
qīpus 122, 124
sa 199
saht 127
sah 62, 92, 120, 239, 240
saihan 81, 120, 139, 141
sēhum 92, 120, 240
sik 139
sind 126
siujan 111
skiljan 117
statrnō 124
sunau 172
sunaus 169
sunnō 148
pana 124
ṣata 83
ṣis 200
ṣiuda 155
ṣizōs 200
ṣuk 96
undarō 137
uns 104
us-, ut 125
watō 62, 113, 128
waihts 84, 126, 150
wasjan 114
waúrd 106, 128
weis 62, 114
wēns 147
winds 97
wisan 89, 139
wizōn 92

X. OLD NORSE

æger 91, 97, 221
armr 91, 137
giōsa, gaus 102
mǫrr 117
sǣtt, sæt 87
þorr 83 f.

XI. WEST GERMANIC

[Words not labeled are English.]

ana (OHG) 132
aram, arm (OHG) 91

aro, arn (OHG) 93, 132, 137, 142
bi-, be- 213
cuman 90
duru 128
earm 91, 137
corsian 107, 137
fȳr 130, 142
grab 91, 118, 131
gush 82, 102
hāhan (OHG) 116, 132
hang 93
hōn 116, 132
mearh 117, 135, 137
niuwī (OHG) 241
niuwōn (OHG) 89, 241
sājan (OHG), *sāwan* 249
sceorpan, scearp 119
sceran, scieran 140
scrama (OHG) 119
seht 87, 117
Sie (NHG) 194
sū 292
sunna 148
sweorfan 91, 113, 131, 137
tenni (OHG) 157
turi (OHG) 128
wastel (OHG) 92
watar (OS), *wæter* 113
wesan 89
west 114
ȳrsian 107, 137
zer-, zir- (OHG) 128

XII. BALTIC

[Words not labeled are Lithuanian.]

alvas 87, 138
añs 202
ašarà 143
ba 131
bēržas 122
dēju, dēt, dēju, dēt (Lett.) 247
duris 128
esm̃, ěst(i) 88
gestū, gesaũ, gèsti 122, 139
giriũ, girti 122
grabūs 91, 118
grēbiũ, grēbti 118
ir 121
jóju, jótĩ 55, 88

keturì 124
langāt (Lett.) 118
maišaiū, -yti 112, 133
mānas 205
mājuju, māuti 104
miju, mīt (Lett.) 112
naktis, nuogas 123
oras 88
puōta 94
rañkoje 171
sebbei (OPr.) 139
sēnu, sēt, sēju (Lett.) 102
širdis 116
šis 95, 116
skeliū, skēlti 117
spēju, spēti 247
sūnūs 176
tāuta (Lett.) 155
vařdas 106, 128
vejū, vīti 112, 114
vērdu, vīrti 121 fn. 79
žēme 136
ziemā 118, 135

XIII. SLAVIC

[Words not labeled are Church Slavic.]

dlagostъ 118, 155
dlagъ 118, 127
děja, dějati 102, 247
děju (Czech.) 247
dviri 128
kamene 171

leža, ležati 89, 118
mene 205
my s toboi (Russian) 165
nagъ 123
ne 132
nebo, nebese 89, 131, 132, 139
noštъ 123
nъ 96
onъ 202
pīja, pīti 130
pršetì (Czech.) 130, 137, 139
sъ 95, 116
speja, spēti 130, 247
taja 88, 111
trétij (Russian) 106
vědě 257
vetъchъ 90, 114
voda 169 fn. 75a
zemlja 136
zima 118
že 121
ženq 89

XIV. TOCHARIAN

ai- 103
jam 90, 111
jokalle, jōkq 91, 119
ke, kašt 118
papārs, por 130
suwaṃ, swese 140
šar 89, 118
thq 118
tsar 89, 118